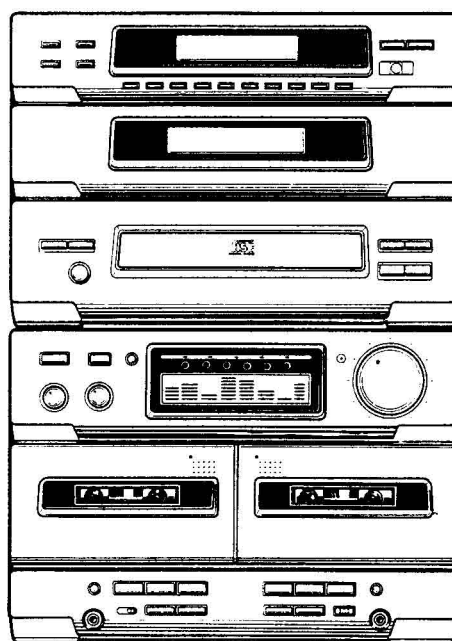


AC-MX450

AKAI SERVICE MANUAL



COMPACT
disc
DIGITAL AUDIO

MINI COMPONENT STEREO SYSTEM
MODEL **AC-MX450**

SAFETY INSTRUCTIONS

PRECAUTIONS DURING SERVICING

1. Parts identified by the Δ (*) symbol parts are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.
Examples: RF converters, tuner units, antenna selects switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
 - 1) Wires covered with PVC tubing
 - 2) Double insulated wires
 - 3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
 - 1) Insulation Tape
 - 2) PVC tubing
 - 3) Spacers (Insulating Barriers)
 - 4) Insulation sheets for transistors
 - 5) Plastic screws for fixing microswitch (especially in turntable)

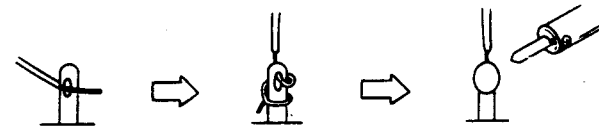
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.
6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).
7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

SAFETY CHECK AFTER SERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.

The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal-input/output connectors, etc.) and the earth ground through a resistor of 1500 ohms paralleled with a 0.15 μ F capacitors, under the unit's normal working conditions. The leakage-current should be less than 0.5 mA rms AC.

The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2 Mohms.



INFORMATION

SYMBOLS FOR PRIMARY DESTINATION

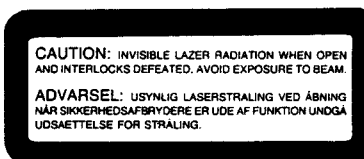
Alphabet indicates the destination of the units as listed below.

Symbols	Principal Destinations
A	USA
B	UK
C	Canada
E	Europe (except UK)
J	Japan
S	Australia
V ₁	Germany only
V ₂	Italy only
U	Universal Area
Y*	Custom version

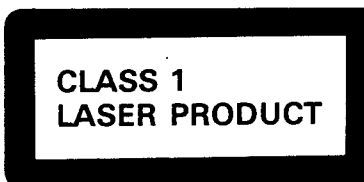
For your own safety, avoid hazardous invisible laser radiation. Do not look at the laser beam (objective lens) directly.

On models for some countries, laser warning labels are affixed on the outside and inside the unit as shown below.

For your own safety, read these labels carefully when repairing or adjusting the unit.



Label affixed on the disc clamper inside the unit.



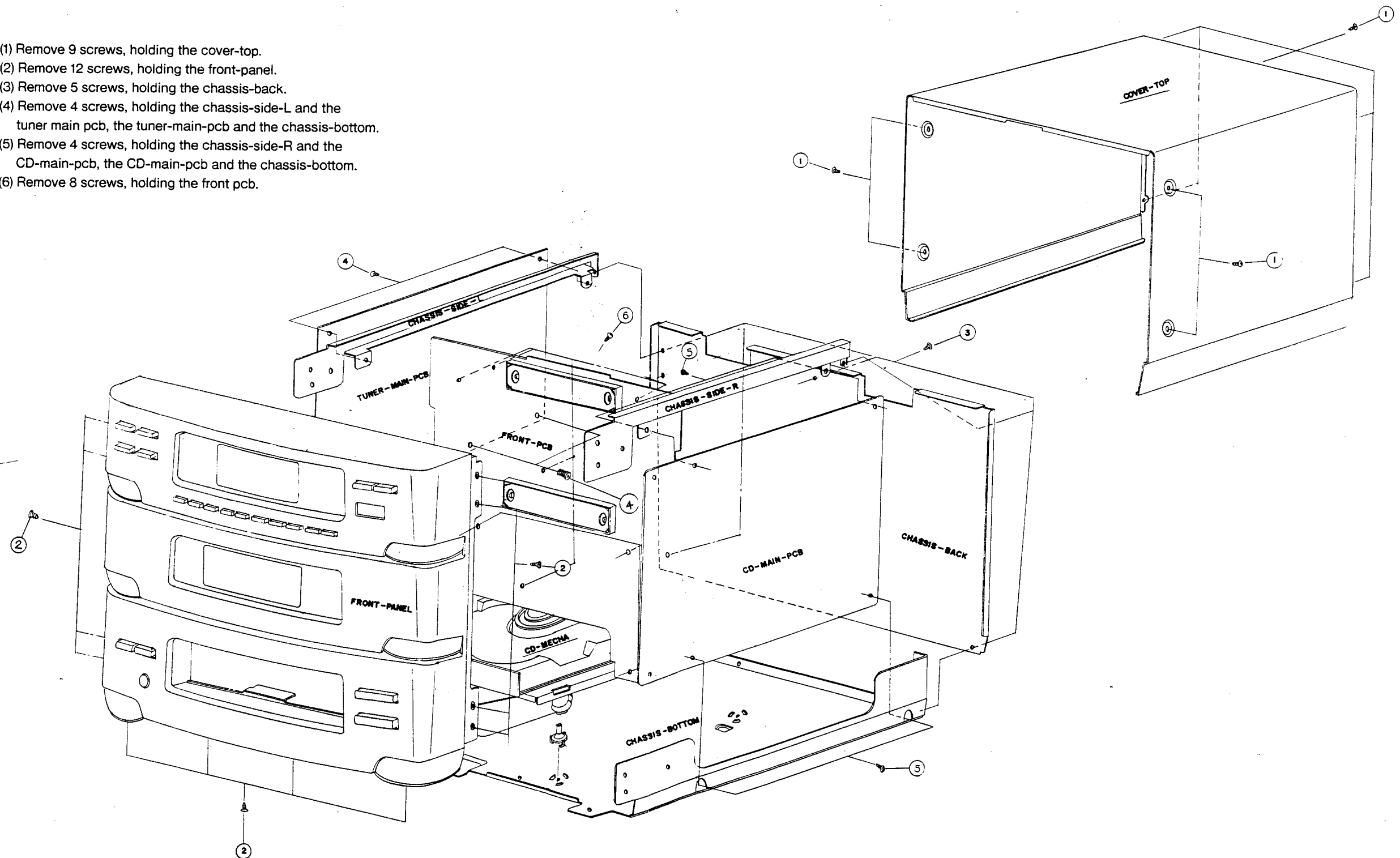
Label affixed on the rear panel of the unit.

I . DISASSEMBLY

In case of trouble, etc., necessitating dismantling, please dismantle in the order shown in the illustrations.
Reassemble in reverse order.

1-1 AC-MX450T

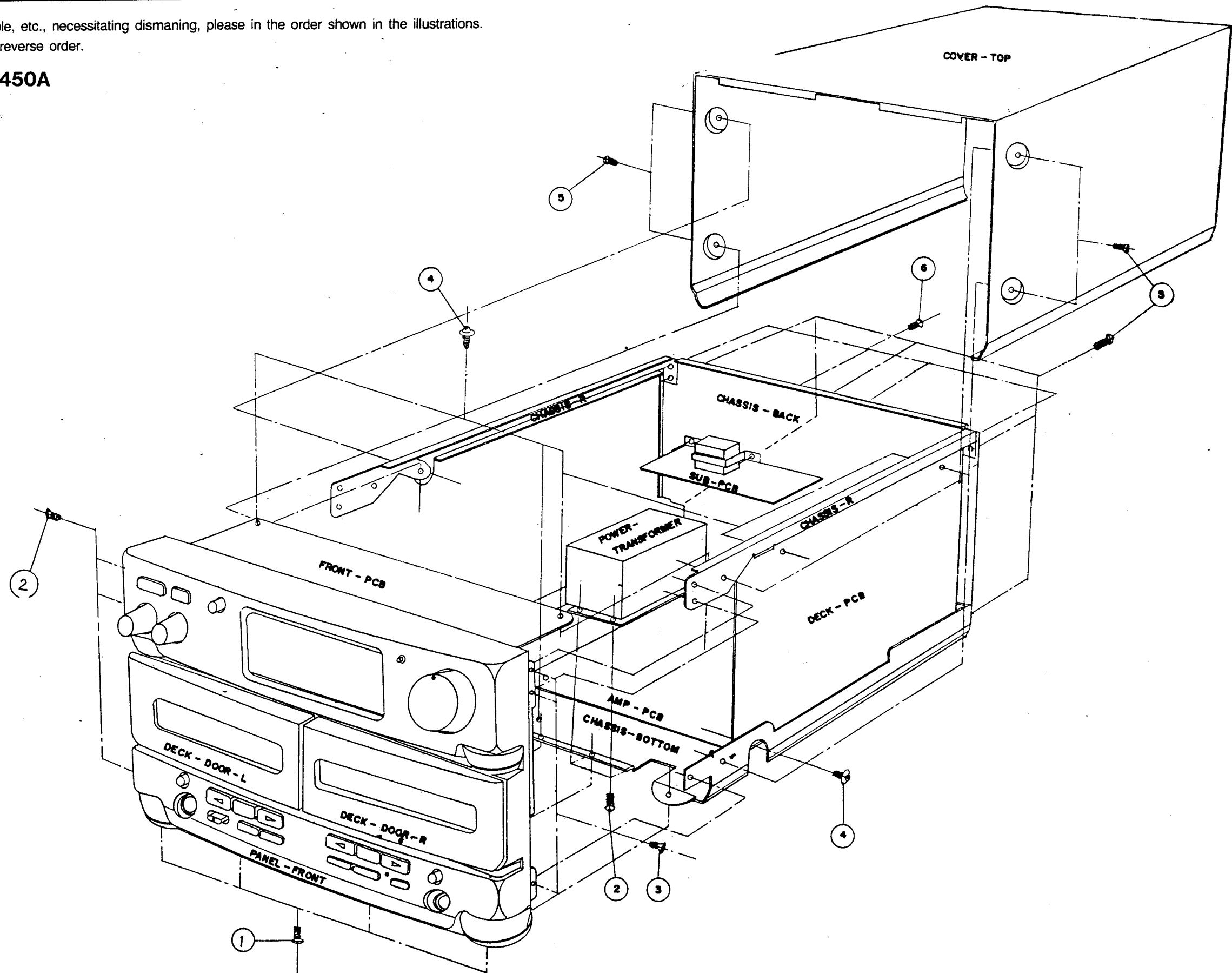
- (1) Remove 9 screws, holding the cover-top.
- (2) Remove 12 screws, holding the front-panel.
- (3) Remove 5 screws, holding the chassis-back.
- (4) Remove 4 screws, holding the chassis-side-L and the tuner main pcb, the tuner-main-pcb and the chassis-bottom.
- (5) Remove 4 screws, holding the chassis-side-R and the CD-main-pcb, the CD-main-pcb and the chassis-bottom.
- (6) Remove 8 screws, holding the front pcb.



I . DISASSEMBLY

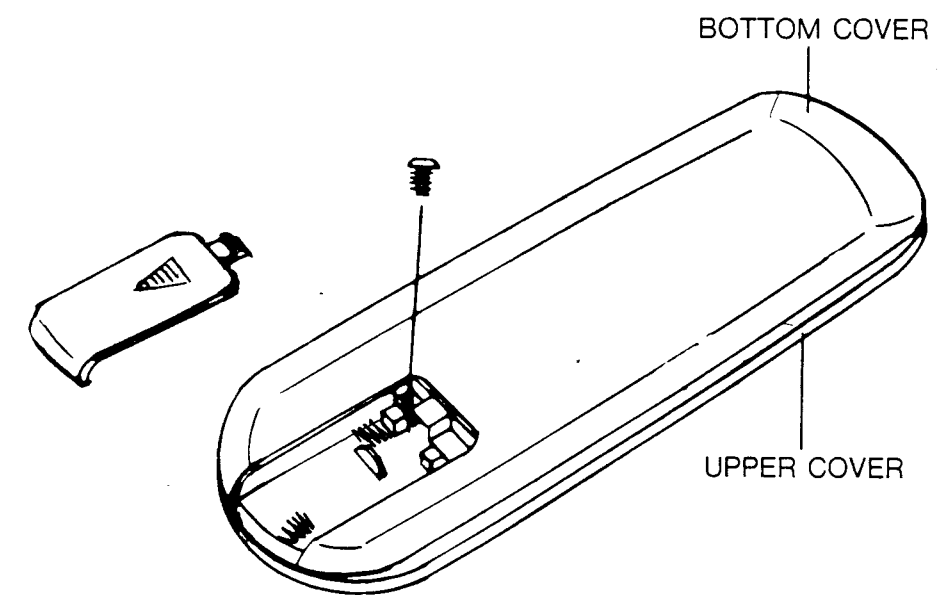
In case of trouble, etc., necessitating dismaning, please in the order shown in the illustrations.
Reassemble in reverse order.

1-2 AC-MX450A



I . DISASSEMBLY

1-3 REMOCON

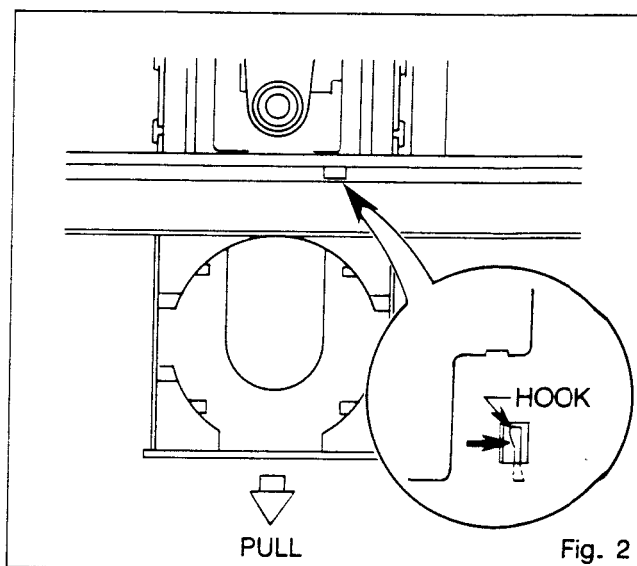
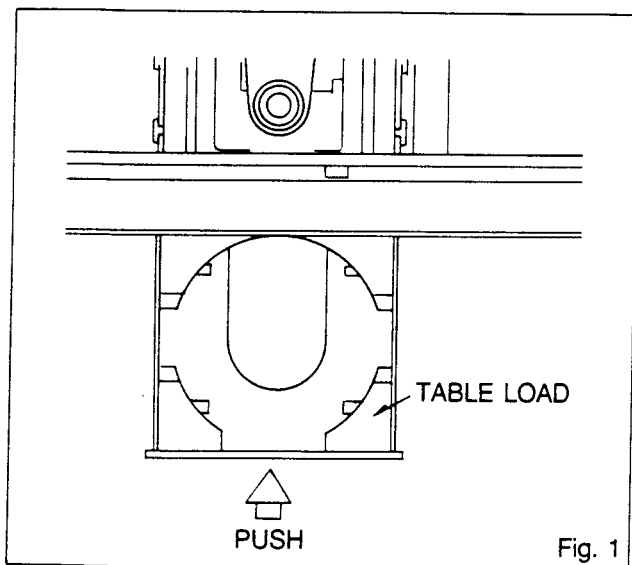


I. DISASSEMBLY

1-4 DISASSEMBLY PROCEDURES FOR CDP SECTION

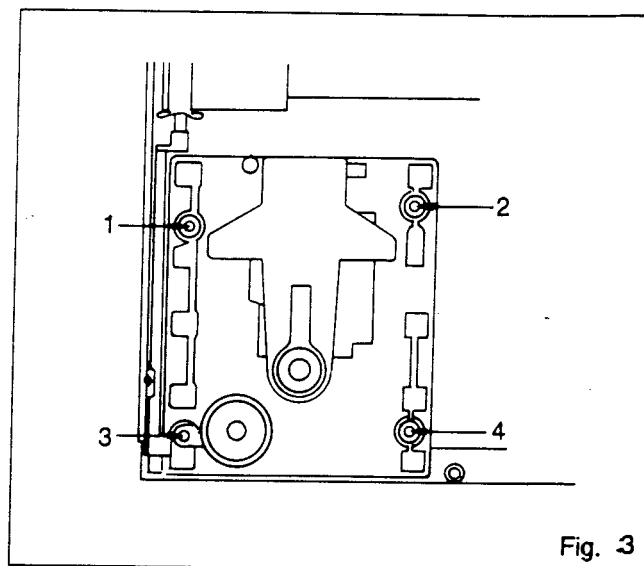
REMOVING THE DISC TRAY

1. Apply Power Switch to the set and press the OPEN/CLOSE button to open the table load.
2. Apply OFF the Power Switch while the table load is open, and push the table load back in by hand to close it.
3. Pull out the table load by hand to open it again. The table load will disengage easily and come out smoothly.
4. Now remove the table load from the cabinet while pressing the hook in the direction of the arrow as shown Fig. 2



REMOVING THE MECHANISM

Take out the four screws (1-4 in the diagram below) with which the mechanism is mounted in place and remove the mechanism.



II. SPECIFICATION

TUNER

Frequency range	: FM : 87.5 – 108.0 MHz (0.05 MHz steps) : MW (AM): 531 – 1602 KHz (9 KHz steps) : LW : 146 – 281 KHz (1 KHz steps)
Sensitivity	: FM 6 μ V, MW (AM): 500 μ V, LW: 1500 μ V
Signal-to-noise ratio (IHF A Network)	: FM mono: 65 dB, FM stereo: 65 dB : MW (AM)/LW: 40 dB
Stereo separation	: 25 dB (1 KHz)

AMPLIFIER

Continuous output power	: 30 + 30 Watts RMS 1KHz THD 10% at 8 ohm
Frequency response	: 20 Hz – 40 KHz (± 3 dB)
Total harmonic distortion	: 0.05% (-10 dB for RMS per channel, power, output at 8 ohm)
Input sensitivity	: AUX/VCR 400mV/50kohms, PHONO 5mV/47kohms

CASSETTE SECTION

Record	: AC bias (100 KHz)
Frequency response	: Normal: 100 Hz—10 KHz (± 3 dB) CrO ₂ : 100 Hz—12.5 KHz (± 3 dB)
Tape speed	: 4.75 cm/sec (Normal), 9.5 cm/sec (High)
Erase	: AC erase
Wow and flutter	: 0.2%
Signal-to-noise ratio	: 50 dB

CD SECTION

● AUDIO CHARACTERISTICS

Frequency response	: 20 Hz – 20 KHz (± 2.0 dB)
Harmonic distortion	: Less than 0.07% (1 KHz)
Signal-to-noise ratio	: 90 dB
Wow and flutter	: Below measurable limits
Channel separation	: More than 90 dB (1 KHz)

● DIGITAL SIGNAL PROCESSING

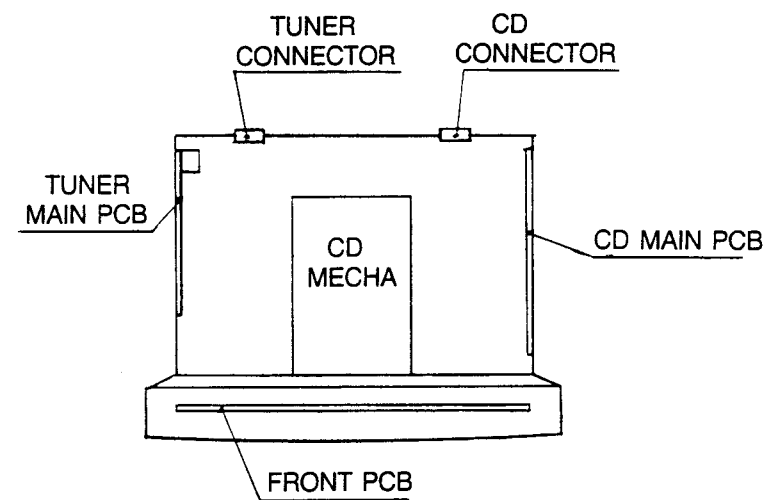
Optical pickup	: 3-beam laser (Semiconductor laser, $\lambda = 780\text{nm}$)
Error correction	: CIRC
Filter	: Digital filter + 4-pole LC filter
Sampling frequency	: 44.1 KHz
D/A conversion	: 16-bit linear

GENERAL

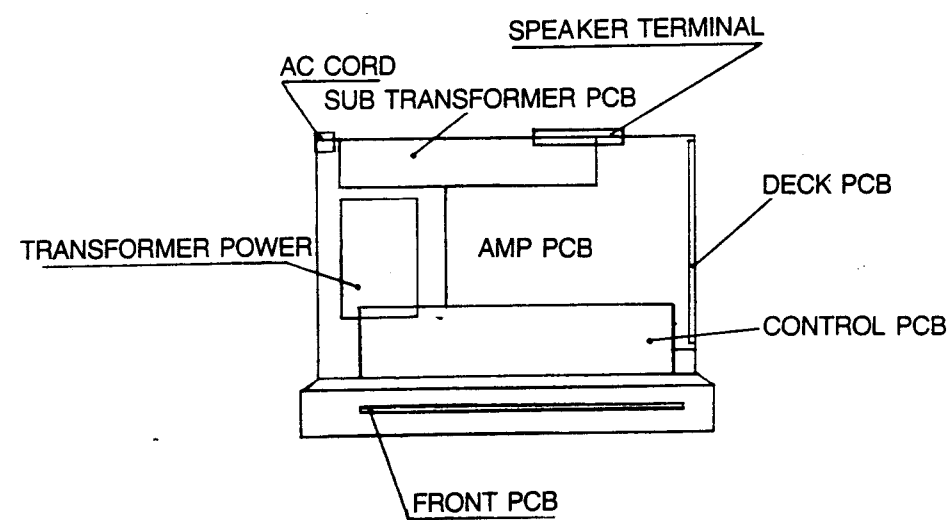
Power source	: AC 220-230V/50Hz ☐ ☒
Dimensions	: Tuner: 265(W) $\times$ 188.5(H) $\times$ 237(D) mm : Amplifier: 265(W) $\times$ 188.5(H) $\times$ 269(D) mm
Weight	: Tuner: 3.15 Kg, Amp: 6.65 Kg

III. PRINCIPAL PARTS LOCATION

3-1 AC-MX450T



3-2 AC-MX450A



IV. ADJUSTMENT

4-1 TAPE

[PRECAUTIONS BEFORE ADJUSTMENT]

1. Before adjustment, clean and de-magnetize the heads and tape guides.
2. Set the switches as follows.
Dolby NR switch : OFF
3. Use the following recording test tapes.
NORMAL position: TDK AC-224
CrO₂ position : TDK AC-513
4. 0 dBs = 388mV

STEP ADJUSTMENT ITEM

1. TEST TAPE/INPUT SIGNAL
2. MODE
3. TEST POINT, ADJUSTMENT PART
4. REMARKS (•) and RESULT (*)

* LINE OUT = TP301 ~ TP303

2 TAPE I NORMAL SPEED

1. 3000 Hz test tape (MTT-111DN)
2. PLAY
3. TP301 ~ TP303, VR803
4. • Connect a frequency counter to TP301, GND
* 3000 ± 10 Hz

1 TAPE I HIGH (×2) TAPE SPEED

1. 3000 Hz test tape MTT-111DN
2. PLAY
3. TP301 ~ TP303, VR804
4. • Connect a frequency counter to TP301, GND
* 6000 ± 10 Hz

4 TAPE II NORMAL TAPE SPEED

1. 3000 Hz test tape MTT-111DN
2. PLAY
3. TP301 ~ TP303, VR802
4. • Connect a frequency counter to TP301, GND
* 3000 ± 10 Hz

3 TAPE II HIGH (×2) TAPE SPEED

1. 3000 Hz test tape MTT-111DN
2. PLAY
3. TP301 ~ TP303, VR801
4. • Connect a frequency counter to TP301, GND
* 6000 ± 10 Hz

5 HEAD AZIMUTH ALIGNMENT (TAPE I & II)

1. 12.5KHz-15VU test tape (MTT-357G)
2. PLAY
3. LINE OUT, HEAD AZIMUTH ALIGNMENT SCREW
4. • Connect an AC milli-voltmeter to TP301 ~ TP303
* Maximum OUTPUT level.

12 TAPE II REC LEVEL

1. NORMAL tape, 1 KHz, -6.5 dBs (AUX IN)
2. REC → PLAY (PB)
3. LINE OUT, VR307 (L-ch)/VR308 (R-ch)
4. • Connect an AC milli-voltmeter to TP301 ~ TP303
* -6.5dBs

8 OSC FREQUENCY (TAPE II REC/PB only)

1. No signal input, CHROME recording test tape.
2. REC
3. GND and P305 white wire, T301.
4. • Connect a frequency counter between GND and P305. (white wire)
* 100 ± 0.5KHz

6 TAPE I PB LEVEL

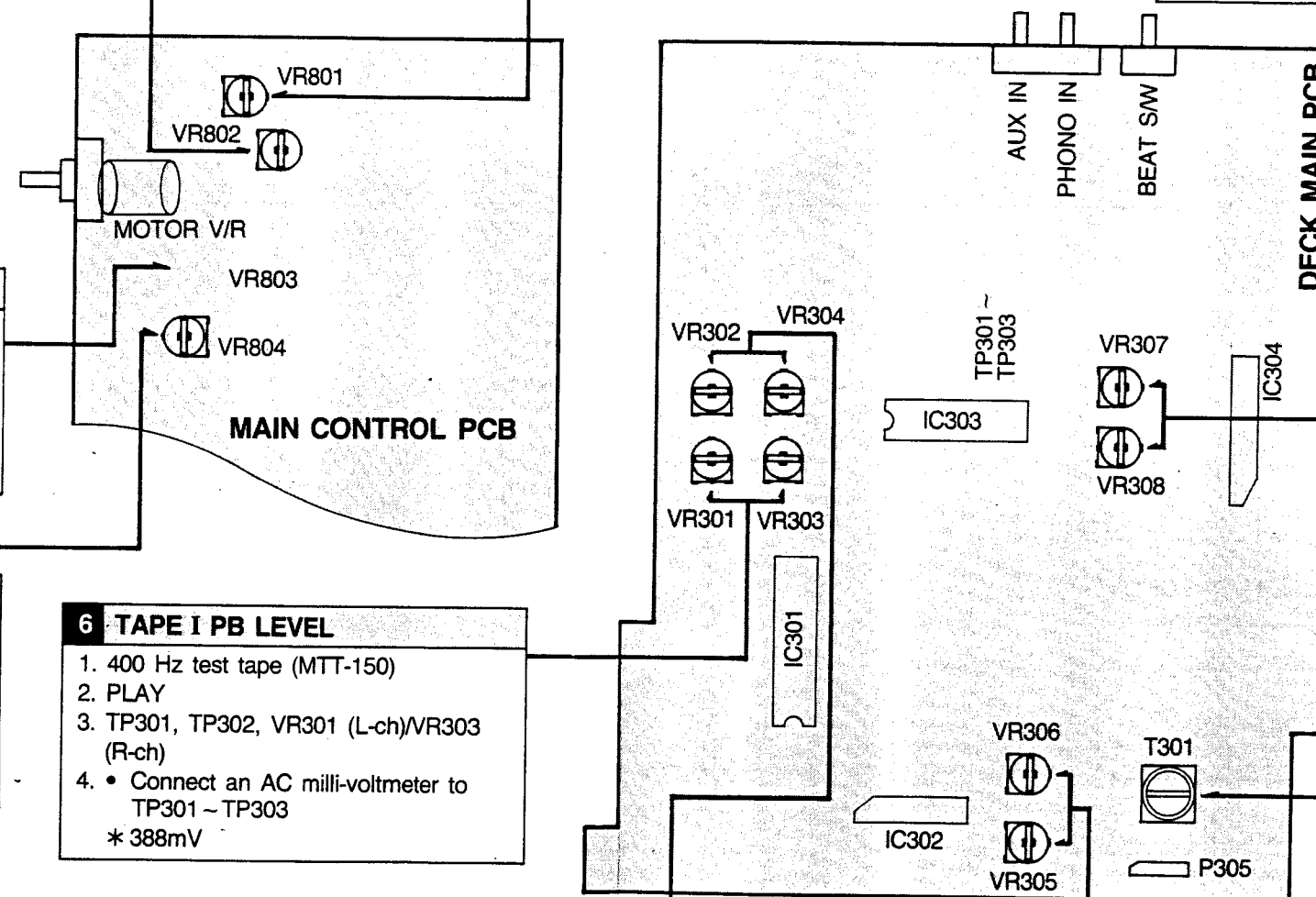
1. 400 Hz test tape (MTT-150)
2. PLAY
3. TP301, TP302, VR301 (L-ch)/VR303 (R-ch)
4. • Connect an AC milli-voltmeter to TP301 ~ TP303
* 388mV

7 TAPE II PB LEVEL

1. 400 Hz test tape (MTT-150)
2. PLAY
3. TP301, TP302, VR302 (L-ch)/VR304 (R-ch)
4. • Connect an AC milli-voltmeter to TP301 ~ TP303
* 388mV

10 TAPE II NORMAL POSITION BIAS

1. 400Hz and 12.5KHz, -25 dBs (AUX IN)
2. REC → PLAY (PB)
3. L & R-ch
4. • Connect an AC milli-voltmeter to TP301 ~ TP303
* Playback levels of 400 Hz and 12.5 KHz are equal or within ± 1.0 dB



IV. ADJUSTMENT

4-2 TUNER

4-2-1 INSTRUMENT CONNECTIONS

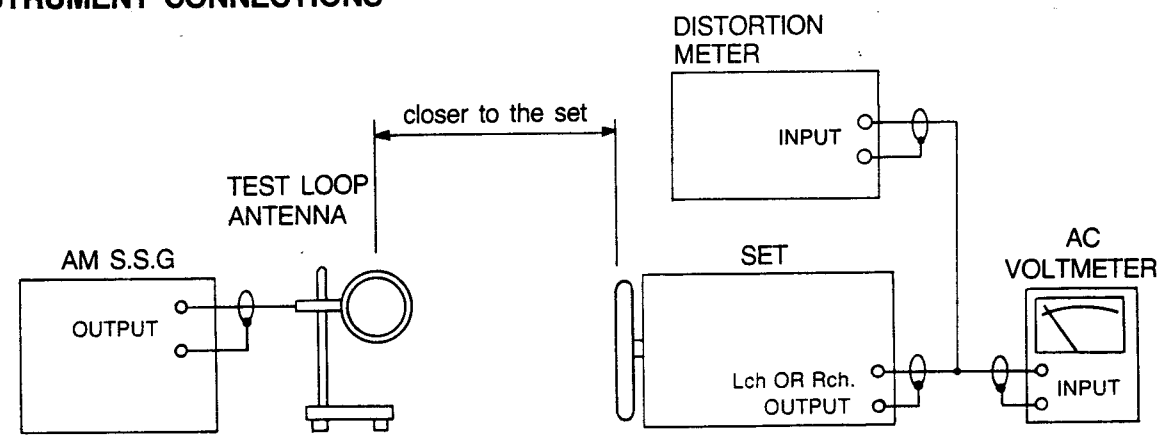


Fig. 4-1 Instrument connection for AM (MW, LW) section adjustment

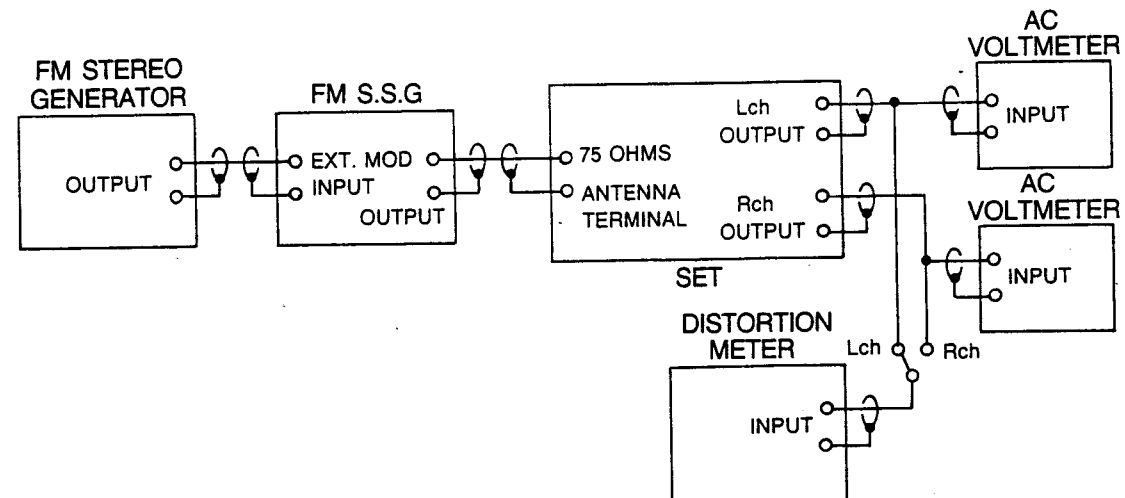


Fig. 4-3 Instrument connection for FM section adjustment

IV. ADJUSTMENT

STEP ADJUSTMENT

1. SSG FREQUENCY, OUTPUT LEVEL
2. TUNING FREQUENCY
3. TEST POINT, ADJUSTMENT PART
4. REMARKS (•) and RESULT (*)
Adjustment part Test point

FM

NOTE: Set the SSG to 1 KHz, 75 KHz deviation for **E B S U Y7** model, 40 KHz deviation for **V** model.

1 TUNED SENSITIVITY

1. 97.945 ~ 97.950 MHz (60 dB μ)
2. 98 MHz (AUTO)
3. JP101, JP102, JP103: T104
4. • Connect the oscilloscope to JP102, JP103 (GND)
* TUNED indicator ON at 97.950 MHz, TUNED Indicator OFF at 97.945 MHz

2 STEREO SEPARATION

1. 98.0 MHz, 60 dB μ (STEREO L or R channel only)
2. 98.0 MHz
3. JP102, JP103 (GND) SV101
4. • Connect an frequency counter to JP102 and JP103 (GND)
* 76.0 ± 0.05 KHz

1 FM SENSITIVITY

1. 90.0, 98.0, 106.0 MHz, 15 dB μ
2. 90.0, 98.0, 106.0 MHz
3. JP102, JP103 (GND) BLACK IFT IN FRONT END
4. • Connect an THD-meter to JP102, JP103 (GND).
* Adjust BLACK IFT so that the reading on the THD METER is minimum distortion.

LW

NOTE: Set the SSG to 1 KHz, 30% modulation of each.

2 LW SENSITIVITY

1. 160 KHz (LOW)/260 KHz (HIGH) 70 dB μ
2. 160 KHz (LOW)/260 KHz (HIGH)
3. JP102, JP103, T102 (LOW)
4. • Connect the Distortion-meter to JP102, JP103 (GND)
* Minimum Distortion Level
NOTE: For best result repeat LOW adjustment several times.

1 TUNING VOLTAGE

1. —
2. 146 KHz (LOW)/281 KHz (HIGH)
3. JP104, JP103, T107 (LOW)
4. • Connect the digital DC voltmeter between JP104 and JP103 (GND).
* Low: 1.3V/HIGH: 7.0 to 8.0V

AM (MW)

NOTE: Set the SSG to 1 KHz, 30% modulation of each.

3 AM (MW) SENSITIVITY

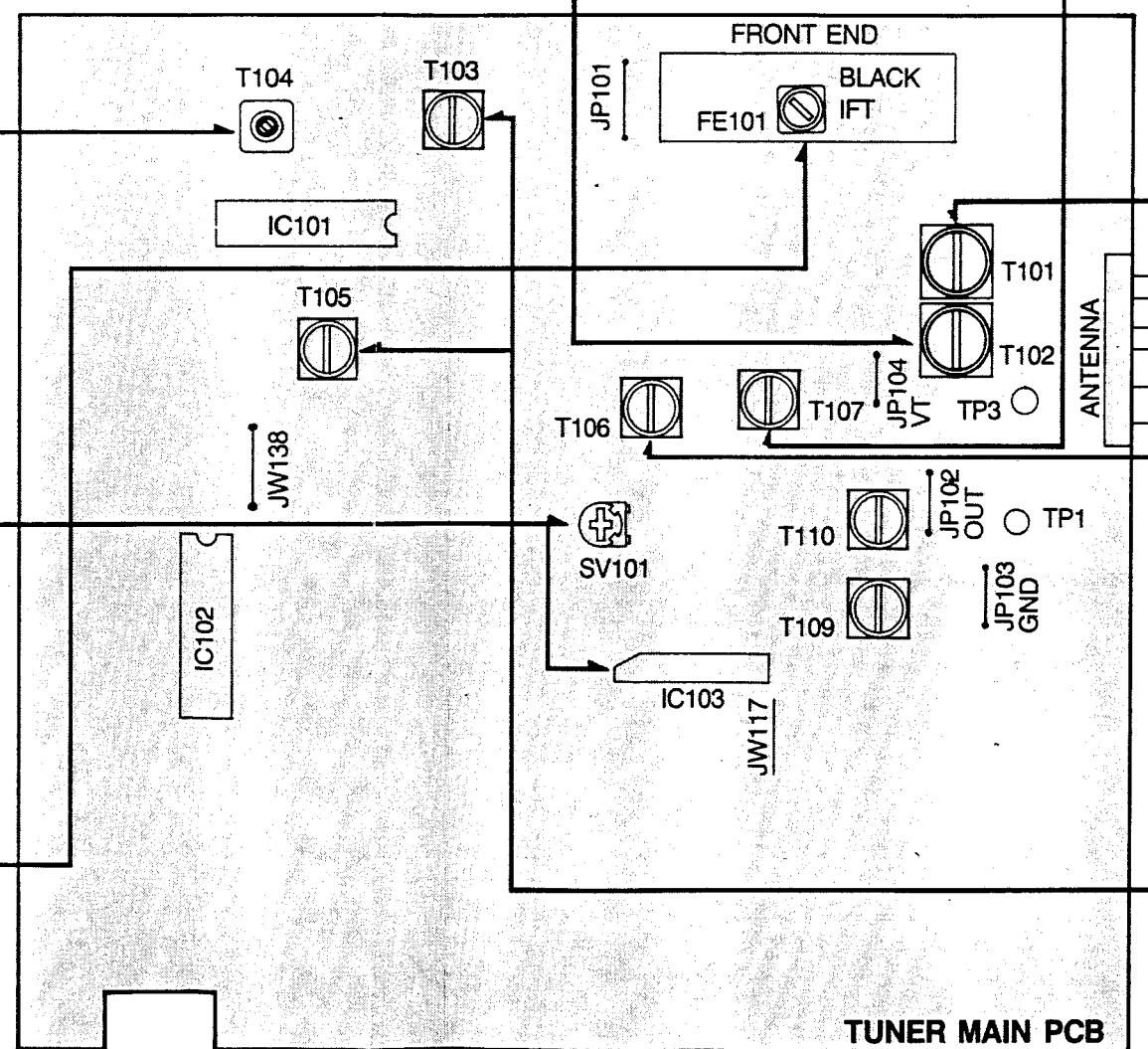
1. 603 KHz (LOW)/1404 KHz (HIGH), 60 dB μ
2. 603 KHz (LOW)
3. JP102, JP103
4. • Connect the Distortion-meter to JP102, JP103 (GND)
* Minimum Distortion Level
NOTE: For best result repeat LOW adjustment several times.

1 AM (MW) TUNING VOLTAGE

1. —
2. 531 KHz (LOW)/1602 KHz (HIGH)
530 KHz (LOW)/1610 KHz (HIGH) **U_B**
3. T106 (LOW)
4. • Connect the digital DC voltmeter between JP104 and JP103 (GND).
* LOW 1.0V/HIGH: 7.0 to 8.0V

2 AM IF

1. 603 KHz 74 dB μ
2. 603 KHz
3. JP102, JP103, T103, T105
4. • Connect the AC milli-voltmeter to JP102, JP103 (GND).
* Maximum OUTPUT level.



IV. ADJUSTMENT

4-3 CDP

STEP	ADJUSTMENT ITEM
1.	Test disc
2.	Mode
3.	Test Point & Adj. Part
4.	Result & Remarks

ADJ. Part
Test Point

2 E-F BALANCE

1. Test disc A-BEX TCD-791.
2. PLAY (TNO 4)
3. VR802
4. Connect an oscilloscope between "TE" of CN10 and GND then short between "T OFF" of CN10 and GND.
* Adjust VR802 so that center of waveform on the oscilloscope as shown below.

3 FOCUS SERVO GAIN

1. Test disc A-BEX TCD-791
2. PLAY (TNO4)
3. VR801
4. Connect an oscilloscope between "F COIL" of CN2 and GND.
*0.6 to 1.0Vp-p

4 TRACKING SERVO GAIN

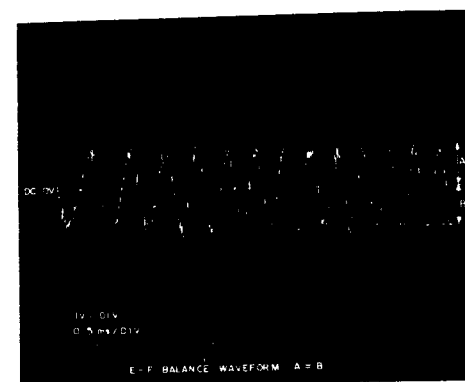
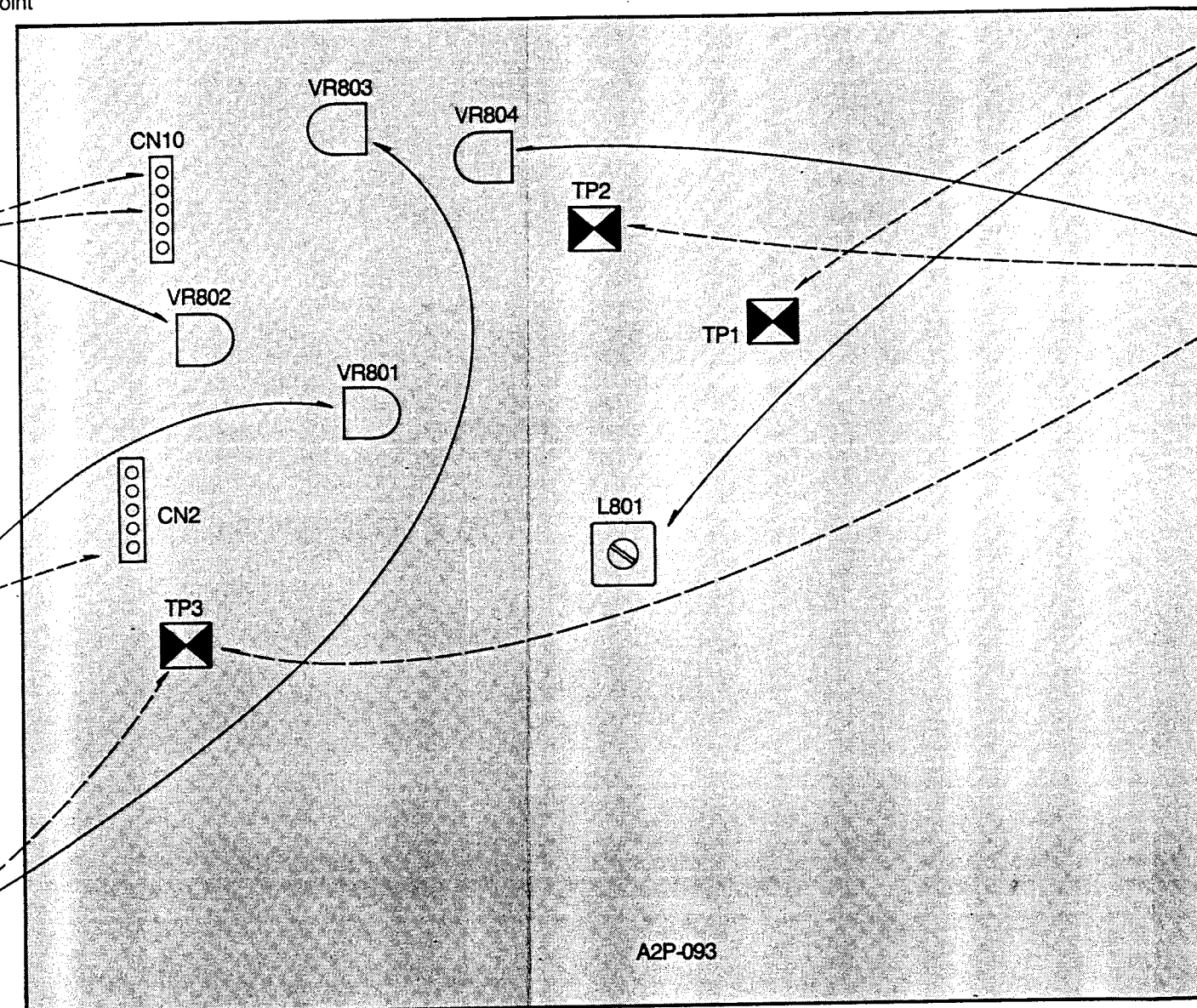
1. Test disc A-BEX TCD-791
2. PLAY (TNO4)
3. VR803
4. Connect an oscilloscope between pin TP3 and GND.
*0.8 to 1.2 Vp-p

1 PLL

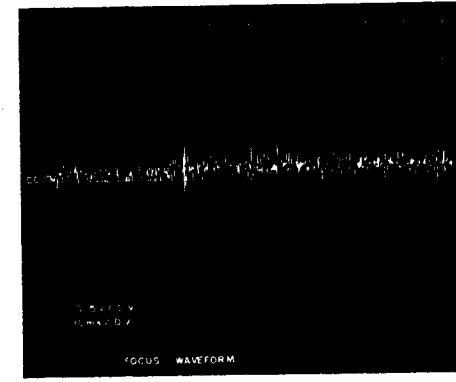
- 1.
2. STOP
3. Connect Frequency Counter to Test pin TP1.
4. Adjust L801 so that 4.4MHz $\pm$ 50KHz

5 TRACKING SERVO OFF-SET

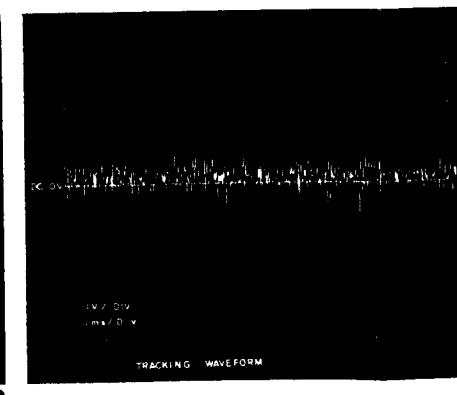
- 1.
2. STOP
3. VR804
4. Connect on oscilloscope to test pin TP3, then short the test pin TP2 and GND.
* Adjust VR804 so that the center of waveform on the oscilloscope is DC 0V $\pm$ 20mV.



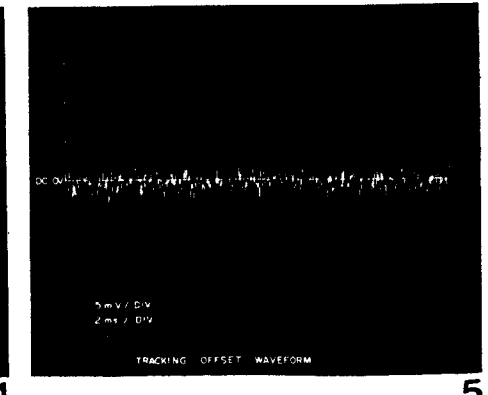
2



3



4



5

V. PARTS LIST

ATTENTION

1. When placing an order for parts, be sure to list Part No, Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering.
If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

HEAD BASE BLOCK

Ref. No.	Part No.	Description
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H2206A010A	HEAD R/P PR4-8FUC
3	ZS-477876	PAN20 x 03STL CMT
4	ZS-536488	BID20 x 08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

SP (Service Parts) Classification

This number corresponds with the individual parts index number in that figure.

b) PC Board

MAIN P.C. BOARD

Ref. No.	Part No.	Description
IC1	EI-324536	IC HD14049BP
IC2	EI-336801	IC MB8841-564M
C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
C1B	EC-350949	C MMY V 223M 250DC [J]
C1C	EC-338397	C MMY V 223M 125AC [C,A]
X1	EI-318384	OSC X'TAL NC-18C

Symbols for primary destination

[A]: AAL (U.S.A) [S]: SAA (Australia)
[B]: BEAB (England) [U]: U/T (Universal Area)
[C]: CSA (Canada) [V1]: VDE (Germany)
[E]: CEE (Europe) [V2]: VDE (Italy)
[J]: JPN (Japan) [Y]: Custom Version
[Y7]: Custom Version

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the schematic diagrams.

The available PC Board Blocks are listed separately.

5. When Part No. is known, Parts Index at end of Parts List can be used to locate where that part is shown in Parts List by its Reference No. listed at right of Part No.

WARNING

(*) INDICATED SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

AVERTISSEMENT

(*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

V. PARTS LIST

1. RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref. No.	Part No.	Description
1-1	PTAJ00660Y18	TRANS-POW A74-066Y-V (MAIN)
2-1	PTAC00910Y18	TRANS-POW A35-091Y-V (SUB PT)
3	DECA00290002	MECHA CASSETTE
4	DECA00300002	ADR-1920FR R/P DECHA CASSETTE ADR-1921FR PLAY
5	DECD0007200F	MECHA-CDP CDKM87TK3
6	ESRY00010120	RELAY HR703V DC12V
7	ESRY00110121	RELAY JW1AFSN DC12V
8	FGFBS1002137	FUSE T 250V 1A
9	FGFBS2002137	FUSE T 250V 2A
10	DDTR00020SD0	D RECTIFIER 1N4002 100V 1A
11	DDMR00191T11	D RECTIFIER GP20-02A (200V 2A)
12	DDMR00210T11	D RECTIFIER 1N5402 (200V 3A)
13	DDTS00060SO0	D SI 1SS131
14	DDTS00030SO0	D SI 1S2471 80V 0.12A
15	TRTA0008GSDO	TR KTA1266-GR
16	DDSV0003AS30	DVVC 1SV149A-AM
17	TUFF0012000D	FRONT END FE415-G11 FTZ
18	TRTA0008YSDO	TR KTA1266-Y
19	TRTA0012YSDO	TR KTA966A-Y
20	TRTA0044WSOS	TR DTA144W-S
21	TRTA0043ESOS	TR DTA114E-S
22	TRTA0042ESOS	TR DTA124E-S
23	TRTC0001BSDO	TR KTC2878-B
24	TRTC0008YSDO	TR KTC2120-Y
25	TRTC0016YSDO	TR KTC3198-Y
26	TRTC0060ESOS	TR DTC144E-S
27	TRTC0061ESOS	TR DTC124E-S
28	TRTC0062ESOS	TR DTC114E-S
29	TRTC0094YSDO	TR KTC3199-Y
30	TRTC0039YSDO	TR KTC2236A-Y
31	TRTA0009ASDO	TR KTA1271-Y
32	TRTC0016GSDO	TR KTC3198-GR
33	TRTD00200SD0	TR KTD1302
34	TRTC0010YSDO	TR KTC1923-Y
35	DDTZG075BSO0	D ZENER MTZ7.5B
36	DDTZG0510SO0	D ZENER MTZ5.1
37	DDTZG0560SO0	D ZENER MTZ5.6
38	DDTZG082CSO0	D ZENER MTZ8.2C
39	DDTZG0910SO0	D ZENER MTZ9.1
40	DPLA0019000L	LAMP 150mA 6.3V
41	DPLC0010000P	DISPLAY-LCD
42		HDL7332-5A6R022A-CDP
43	DPLC0009000T	DISPLAY-LCD
		HDL7332-5A2P02GA-TUNER
44	DPLC0009100E	DISPLAY-LCD
		HDL7331-5A2P02GA EQ
45	DPLT00492RR3	DOT LED AL-131RD
46	DPLT00512RR2	DOT LED AL-424RD
47	DPLT00462DY3	DOT LED AL-134YD
48	DPLT00471DY2	DOT LED AL-423YD [S]
49	DPLT00472RR2	DOT LED AL-423RD
50	DPLT00492DY3	DOT LED AL-131YD
51	DPIR00021005	DOT 1R LED KLN-105B-B

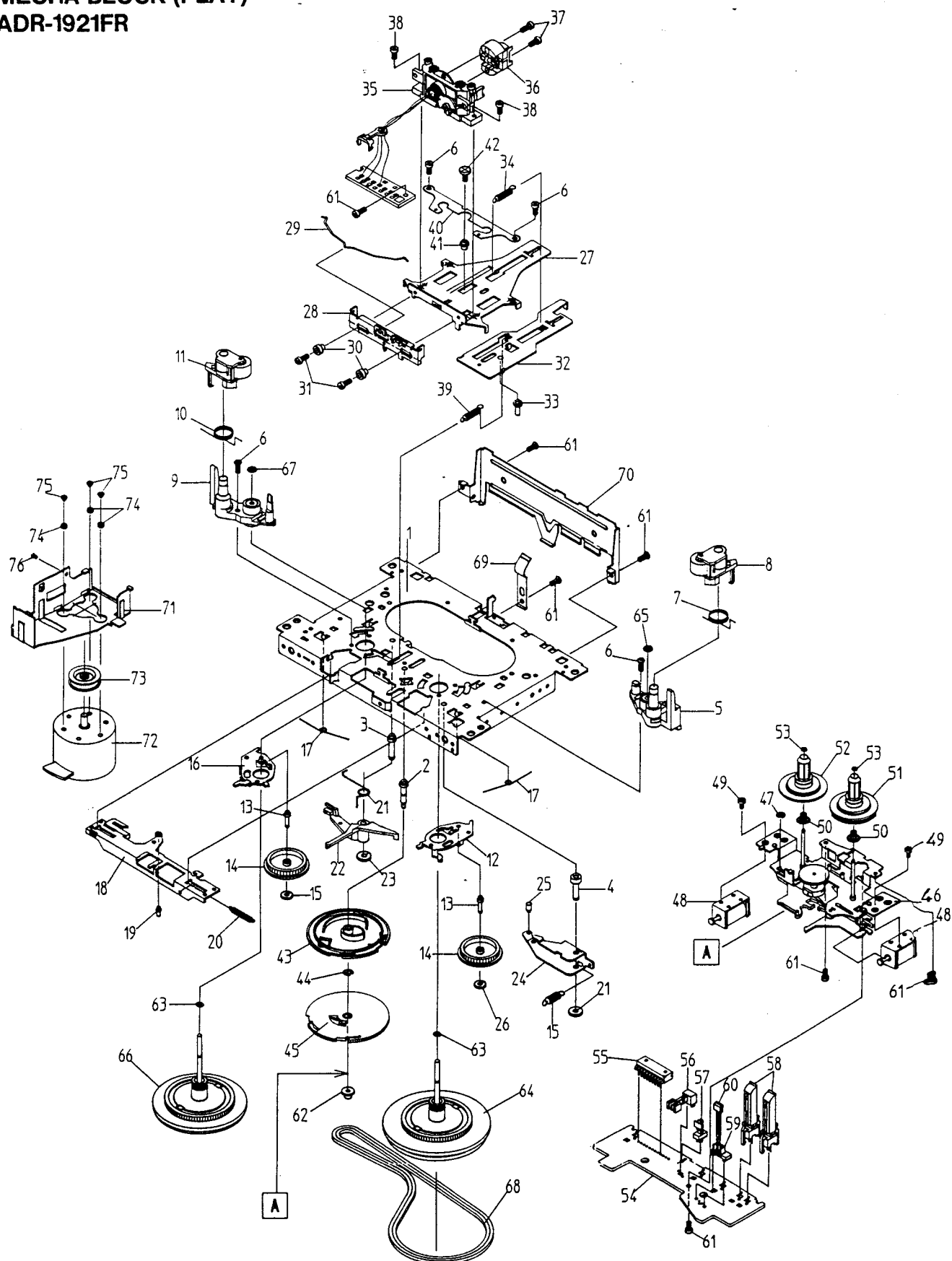
Ref. No.	Part No.	Description
52	ICOP00130SE0	IC MC4558G
53	ICDG00140S10	IC LC7520
54	ICLN00870S40	IC CXA1102P
55	ICCM20200SH0	IC MB88306
56	ICDG00240S10	IC LC7561
57	ICDG00560SBO	IC BA6208
58	ICLN00710S90	IC M5229P
59	ICMP00520S20	IC UPD75108GF-R30-3BE
60	ICOP00121SE0	IC LM324
61	ICCM00170SQ0	IC GD4052B
62	ICDG00370S20	IC UPD1330HA
63	ICLN00120SD0	IC KIA7784P
64	ICHP00090S10	IC STK4132 II
65	ICRG00090SE0	IC MC7806C
66	ICRG000190SE0	IC MC7912C
67	ICRG00217SE0	IC MC7812C
68	ICDG00460S30	IC TC9227P
69	ICLN00070SD0	IC KIA7343P
70	ICLN00100SD0	IC KIA7758P
71	ICHY00120TL0	IC KRM-50M2
72	ICMP00171S30	IC TCM-9110-014 [S, B, U _s , V, E, Y:]
73	ICMP00170S30	IC TC9306F-027BS [U _s]
74	ICMP00500S10	IC TCD9103-006-1435
75	ICDG00151S10	IC LC7860KA
76	ICDG00470SQ0	IC GM76C28-10
77	ICDG00590SE0	IC KDA0316
78	ICLN00720S10	IC LA 9200NM
79	ICRG00040SE0	IC MC7805C
80	ICMP00220S20	IC UPD6122G-001
81	KTRE00090040	REASONATOR CST4.00MGW
82	KTRE00060004	REASONATOR CSB455E 4.55KHz
83	KTAL00010086	CRYSTAL HC-49/U 8.6436MHz
84	KTAL00040072	CRYSTAL HC-49/U 7.2MHz
85	KTRE00030041	REASONATOR CSA4.19MG
86	SWPU00301038	SW PUSH 00220014
87	SWSL00490054	SW SLIDE KSA2340C
88	SWTA00180060	SW TACT SKHVBE
89	SWSL00128012	SW SLIDE 00120050
90	VRAED108C203	VR RK12K 1130-20KC
91	VRAED019W104	VR RK12K 1170-100KW
92	VWBD0008B104	VR RK16Y12MC2RA 100KB × 2
93	KIRO00290E10	COIL-REC OSC ARO029 4.7 MHz
94	KIMLA0010E60	COIL-FM MPX FILTER AMA-001A
95	KIMLA0020E20	COIL-FM MPX FILTER AFL-002
96	KIAT00350E20	COIL-AM ANT AAT-035 MV
97	KIAT00300E20	COIL-AM ANT AAT-030 LV
98	KIAO00250E20	COIL-AM OSC AAO-025 LV
99	KIAO00240E20	COIL-AM OSC AAO-024 MV
100	IFFD00070E20	IFT-FM DET AFD-007
101	IFAD00040E20	IFT-AM DET AAD-004
102	IFAA00130E20	IFT-AM AAA-013
103	KIBK00050E40	COIL AUDIO CHOCK ABK005
104	KIRO00180E20	COIL REC OSC ARO-018
105	KIRP00040E60	COIL REC TRAP ARP-004A
106	KIRP00050E60	COIL REC TRAP ARP-005A
107	KIRK00150E60	COIL REC CHOCK ARK-015A
108	RFUMGR47J130	R-FUSIBLE 1/2W 0.47 ohm
109	RFUMF2R2J120	R-FUSIBLE 1/4W 2.2 ohm
110	RFUMF4R7J120	R-FUSIBLE 1/4W 4.7 ohm
111	RFUMF560J120	R-FUSIBLE 1/4W 56 ohm
112	RFUMG1R0J130	R-FUSIBLE 1/2W 1 ohm
113	RFUZF470J001	R-FUSIBLE 1/4W 47 ohm
114	BTCE00152107	FILTER CERAMIC SFE 10.7MHz JA10H-A

V. PARTS LIST

Ref. No.	Part No.	Description
115	BTCE00130004	FILTER CERAMIC SFU 450B
116	CACSU472M084	CAPACITOR AC S400V SCF2G 472M12BS
117	KDAC0180F5N8	CORD-AC KKP419C KLCE 2F
118	ICRG00030SD0	IC KIA79L006P
119	KORB00030003	CORE-BEADS BFD3514 R2F

V. PARTS LIST

MECHA BLOCK (PLAY) ADR-1921FR



V. PARTS LIST

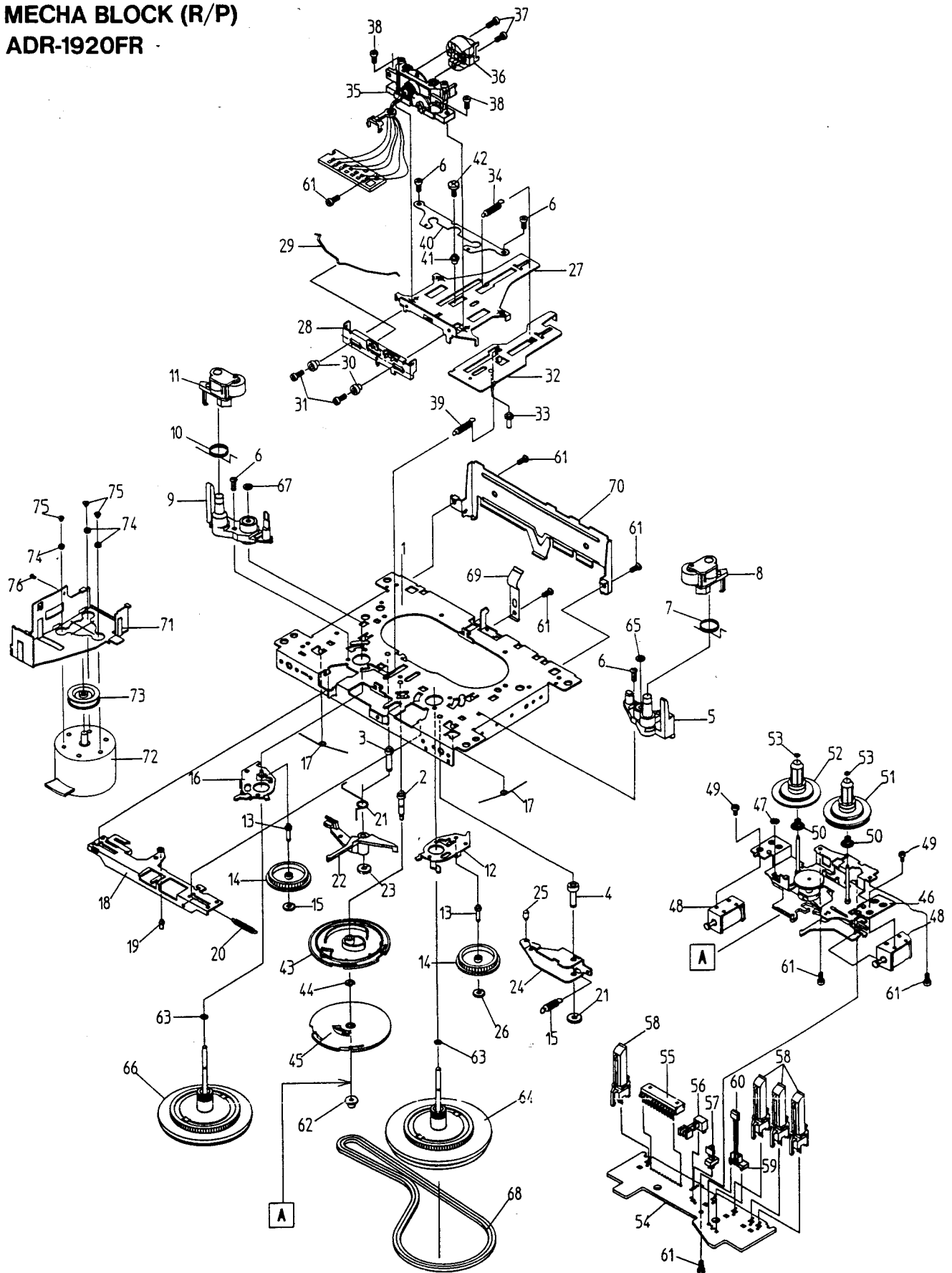
2. MECHA BLOCK (PLAY)

Ref. No.	Part No.	Description
1	11112-00410BA	CHASSIS-MAIN
2	11150-01700EA	SHAFT-GEAR CAM
3	11150-01790EA	SHAFT-ARM CAMP
4	11150-01780EA	SHAFT-APSS
5	11105-00280FA	BASE-CAPSTAN F
6	51271-02086PL	SPRING PINCH F
7	50232-20059EA	SCREW (PH M2×5)
8	ADR26-011	ASS'Y-ARM PINCH F
9	11105-00290FA	BASE-CAPSTAN R
10	51271-02086PR	SPRING-PINCH R
11	ADR26-012	ASS'Y-ARM PINCH R
12	11102-00761BA	ARM-FWD
13	11150-01710EA	SHAFT-GEAR P
14	11128-00520AA	GEAR-FWD
15	51263-03036PB	SPRING-ARM FWD
16	51010-01202AA	WASHER (φ1.2×φ3.2×T0.25)
17	11102-00771BA	ARM-RVS
18	11134-01591BA	LEVER-AC
19	11150-01720EA	SHAFT-LEVER AC
20	51212-02026PB	SPRING-LEVER AC
21	51266-03056PA	SPRING-CAM LOCK P
22	11102-00780AA	ARM-CAM LOCK P
23	51010-02004AA	WASHER (φ2×φ4×T0.4)
24	11134-01582BA	LEVER-APSS
25	11150-01740EA	SHAFT-LEVER APSS
26	51211-07046PA	SPRING-LEVER APSS
27	11105-00260BA	BASE-HEAD
28	11143-00591BA	PLATE-SELECTION
29	51298-08003BA	SPRING-PINCH
30	11114-00010EA	COLLAR-PS
31	50212-17049EA	SCREW (CH M1.7×4)
32	11105-00250BA	BASE-SUB HEAD
33	11150-01730EA	SHAFT-BASE SUB HEAD
34	51211-04036PA	SPRING-BASE HEAD
35	ADR20-007	ASS'Y-BRACKET HEAD
36	71486-93013ZA	HEAD-PLAY ONLY
37	50032-16061EA	SCREW (PH M1.6×7)
38	50212-20059EA	SCREW (CH M2×5)
39	51211-02026PD	SPRING-BASE SUB
40	11143-00581BA	PLATE-SPRING BH
41	11114-00020EA	COLLAR-BASE HEAD
42	50262-20059EA	SCREW (BH M2×5)
43	11128-00530AA	GEAR-CAM P
44	51885-02004XA	RING-E
45	11128-00540AA	GEAR-CAM RF
46	ADR12-034	ASS'Y-CHASSIS REEL
47	51855-01502RA	RING-CS
48	79840-00002AA	SOLENOID
49	50232-20039EA	SCREW (PH M2×3.5)
50	51201-03056PL	SPRING-BACK TENSION F
51	ADR28-011	ASS'Y-REEL F
52	ADR28-012	ASS'Y-REEL R
53	51010-01203AB	WASHER (φ1.2×φ3.5×T0.35)
54	11142-00071FA	PCB-CONTROL
55	70212-20006HA	CONNECTOR (9 PIN)
56	70022-02040DA	SWITCH (FF/REW)
57	70022-02041CA	SWITCH (PLAY)
58	70022-02042DA	SWITCH (SELECT TAPE)
59	11130-00160AA	HOLDER-SENSOR
60	69801-99001ZA	HALL IC

Ref. No.	Part No.	Description
61	50232-20049EA	SCREW (PH 2×4)
62	11117-00080AA	CAP-ARM RF
63	51000-02302BA	WASHER (φ2.3×φ3.5×T0.25)
64	ADR15-012	ASS'Y-FLYWHEEL F
65	51010-01905AA	WASHER (φ1.9×φ4×T0.5)
66	ADR15-013	ASS'Y-FLYWHEEL R
67	51010-01605AA	WASHER (φ1.6×φ3.5×T0.5)
68	51428-07013BA	BELT (φ70.4)
69	51299-02506XC	SPRING-PLATE
70	11120-00030BA	COVER-SWITCH
71	11106-00500BA	BRAKECT-MOTOR
72	71650-12011AA	MOTOR (SHU2L)
73	11145-00520AA	PULLEY-MOTOR
74	11115-00020FA	COSHION-MOTOR
75	50062-26041EA	SCREW (BH M2.6×4)
76	50212-20049EB	SCREW (CH M2×4)

V. PARTS LIST

MECHA BLOCK (R/P) ADR-1920FR



V. PARTS LIST

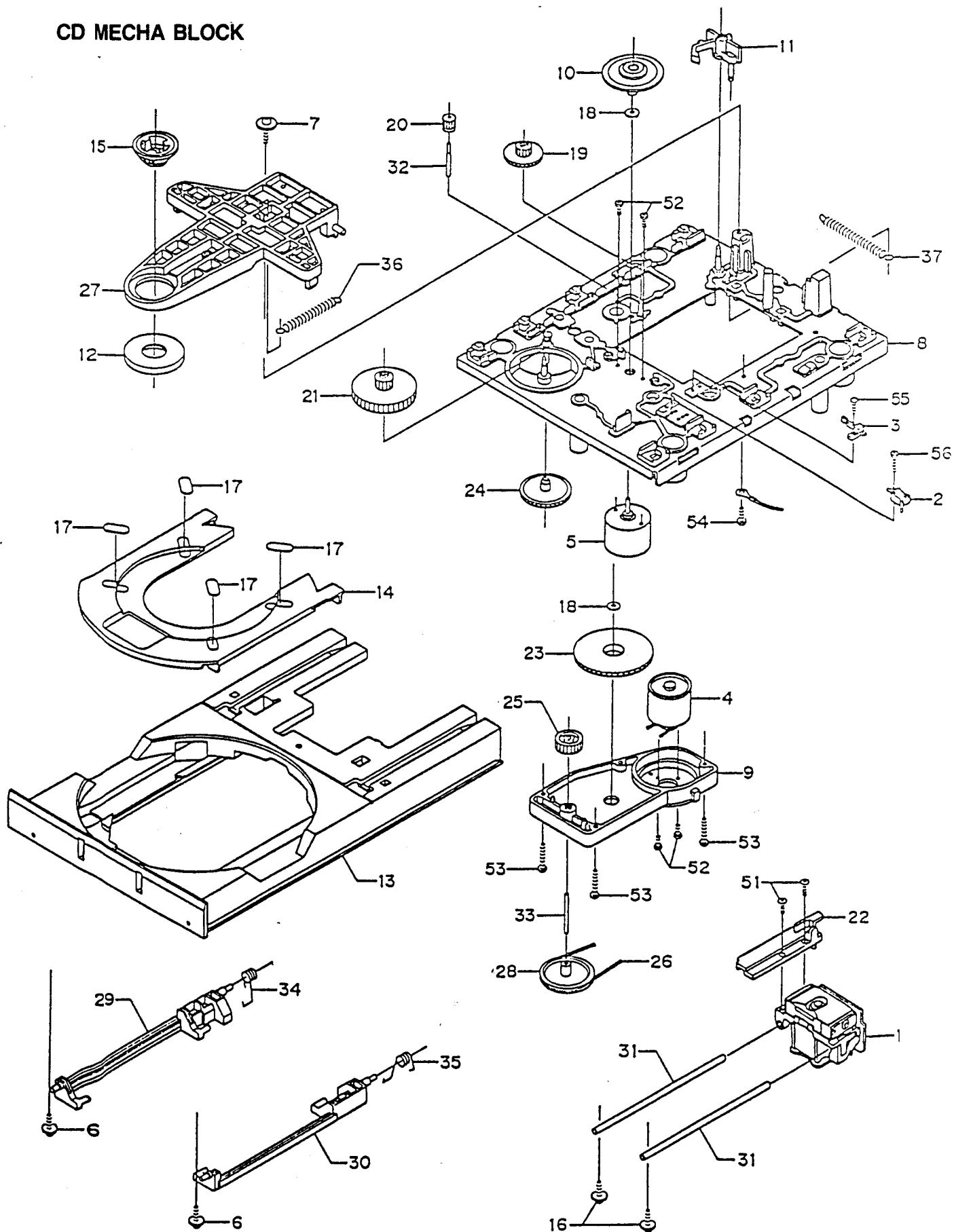
3. MECHA BLOCK (R/P)

Ref. No.	Part No.	Description
1	11112-00410BA	CHASSIS-MAIN
2	11150-01700EA	SHAFT-GEAR CAM
3	11150-01790EA	SHAFT-ARM CAMP
4	11150-01780EA	SHAFT-APSS
5	11105-00280FA	BASE-CAPSTAN F
6	51271-02086PL	SPRING PINCH F
7	50232-20059EA	SCREW (PH M2×5)
8	ADR26-011	ASS'Y-ARM PINCH F
9	11105-00290FA	BASE-CAPSTAN R
10	51271-02086PR	SPRING-PINCH R
11	ADR26-012	ASS'Y-ARM PINCH R
12	11102-00761BA	ARM-FWD
13	11150-01710EA	SHAFT-GEAR P
14	11128-00520AA	GEAR-FWD
15	51263-03036PB	SPRING-ARM FWD
16	51010-01202AA	WASHER ($\phi 1.2 \times \phi 3.2 \times T0.25$)
17	11102-00771BA	ARM-RVS
18	11134-01591BA	LEVER-AC
19	11150-01720EA	SHAFT-LEVER AC
20	51212-02026PB	SPRING-LEVER AC
21	51266-03056PA	SPRING-CAM LOCK P
22	11102-00780AA	ARM-CAM LOCK P
23	51010-02004AA	WASHER ($\phi 2 \times \phi 4 \times T0.4$)
24	11134-01582BA	LEVER-APSS
25	11150-01740EA	SHAFT-LEVER APSS
26	51211-07046PA	SPRING-LEVER APSS
27	11105-00260BA	BASE-HEAD
28	11143-00591BA	PLATE-SELECTION
29	51298-08003BA	SPRING-PINCH
30	11114-00010EA	COLLAR-PS
31	50212-17049EA	SCREW (CH M1.7×4)
32	11105-00250BA	BASE-SUB HEAD
33	11150-01730EA	SHAFT-BASE SUB HEAD
34	51211-04036PA	SPRING-BASE HEAD
35	ADR20-007	ASS'Y-BRACKET HEAD
36	71486-94038ZA	HEAD-REC & PLAY BACK
37	50032-16061EA	SCREW (PH M1.6×7)
38	50212-20059EA	SCREW (CH M2×5)
39	51211-02026PD	SPRING-BASE SUB
40	11143-00581BA	PLATE-SPRING BH
41	11114-00020EA	COLLAR-BASE HEAD
42	50262-20059EA	SCREW (BH M2×5)
43	11128-00530AA	GEAR-CAM P
44	51885-02004XA	RING-E
45	11128-00540AA	GEAR-CAM RF
46	ADR12-034	ASS'Y-CHASSIS REEL
47	51855-01502RA	RING-CS
48	79840-00002AA	SOLENOID
49	50232-20039EA	SCREW (PH M2×3.5)
50	51201-03056PL	SPRING-BACK TENSION F
51	ADR28-011	ASS'Y-REEL F
52	ADR28-012	ASS'Y-REEL R
53	51010-01203AB	WASHER ($\phi 1.2 \times \phi 3.5 \times T0.35$)
54	11142-00071FA	PCB-CONTROL
55	70212-20007KA	CONNECTOR (12 PIN)
56	70022-02040DA	SWITCH (FF/REW)
57	70022-02041CA	SWITCH (PLAY)
58	70022-02042DA	SWITCH (SELECT TAPE)
59	11130-00160AA	HOLDER-SENSOR
60	69801-99001ZA	HALL IC

Ref. No.	Part No.	Description
61	50232-20049EA	SCREW (PH 2×4)
62	11117-00080AA	CAP-ARM RF
63	51000-02302BA	WASHER ($\phi 2.3 \times \phi 3.5 \times T0.25$)
64	ADR15-012	ASS'Y-FLYWHEEL F
65	51010-01905AA	WASHER ($\phi 1.9 \times \phi 4 \times T0.5$)
66	ADR15-013	ASS'Y-FLYWHEEL R
67	51010-01605AA	WASHER ($\phi 1.6 \times \phi 3.5 \times T0.5$)
68	51428-07013BA	BELT ($\phi 70.4$)
69	51299-02506XC	SPRING-PLATE
70	11120-00030BA	COVER-SWITCH
71	11106-00500BA	BRAKECT-MOTOR
72	71650-12011AA	MOTOR (SHU2L)
73	11145-00520AA	PULLEY-MOTOR
74	11115-00020FA	COSHION-MOTOR
75	50062-26041EA	SCREW (BH M2.6×4)
76	50212-20049EB	SCREW (CH M2×4)

V. PARTS LIST

CD MECHA BLOCK



V. PARTS LIST

4. MECHA BLOCK C.D.P(87TK3)

Ref. No.	Part No.	Description
	14122729071000	WIRE BAND
1	1EA0A41A01300	PICK UP ASSY(SF-90)
2	42312070100	LEVER SW 1PIT
3	42319741700	LEAF SW
4	45279717610	MOTOR
5	45279718200	MOTOR
6	13124201282010	SCREW(B TITE SEMS)
7	13124201283000	SCREW(B TITE SEMS)Z
8	14103119286000	CHASSIS ASSY
9	14103129031000	CHASSIS SUB ASSY
10	14105229003000	TURNTABLE ASSY
11	14105559087000	ARM ASSY
12	14108619003000	MAGNET ASSY
13	14121149647020	TABLE LORD
14	14121149648000	TABLE CD
15	14123519838000	HOLDER DISK
16	14124219427000	SCREW WASHER
17	14124459513000	PAD DISK(FELT)
18	14124539143000	WASHER
19	14125519818000	GEAR PICK UP
20	14125519819000	GEAR MOTOR
21	14125519822000	GEAR TABLE LOAD
22	14125519823000	GEAR PICK UP RACK
23	14125519878000	GEAR LOAD UP
24	14125519879000	GEAR LOAD T.L
25	14125519880000	GEAR
26	14125649336000	BELT
27	14126229020000	FLAP DISK CRAMP
28	14126619086000	PULLEY
29	14127429122000	LEVER HOLD DISK L
30	14127429123000	LEVER HOLD DISK R
31	14127519883000	SHAFT PICK UP
32	14127519884000	SHAFT GEAR S
33	14127519912000	SHAFT PULLEY
34	14128529529000	SPRING LEVER LEFT
35	14128529530000	SPRING LEVER RIGHT
36	14128549438000	SPRING FLAP DISK CR
37	14128549439000	SPRING ARM
	14125229013000	TURNTABLE
	14124219367000	SET SCREW V CONE 2×4
51	SE3FN205R0SA-	FLT PCS 2×5
52	SE3PN173R0SM-	PAN PCS 1.7×3
53	SFBAN26140SE-	S-TPG BRZ 2.6×14
54	SFBAN306R0SE-	S-TPG BRZ 3×6
55	SFBPN206R0SE-	S-TPG PAN 2×6
56	ST3PN17100SM-	TPG PAN 2×6

5. P.C BOARD BLOCK

Ref. No.	Part No.	Description
1	PCSU0192011B	A1U-192 102A-MAIN/DECK PCB
2	PCSU0193011B	A1U-193 102A CONTROL PCB
3	PCSU0194011B	A1U-194 102A FRONT PCB
4	PCSU0112034B	A3U-112 102 SUB [E, V, S, B] PCB
	PCSU0113034B	A3U-113 102 SUB [U, Y,] PCB
5	PCPE0147041B	A4E-147 102 REMOTE PCB
6	PCSP0093021B	A2P-093 102 CD MAIN PCB
7	PCSU0196021B	A1U-196 102T FRONT PCB
8	PCSU0195021B	A1U-195 102T MAIN PCB
9	PCSU0016044B	A4T-160 FRONT END PCB

6. CD P.C BOARD

Ref. No.	Part No.	Description
VC801	DDSV00100S10	D-VVC SVC-211
D801	DDTS00064S00	T DO-40 1SS131
D802		
D803		
D804		
D805		
D806		
D807		
D808		
D809		
D811		
D813		
ZD801	DDTZG075BS00	D-ZENER MTZ7.5B
ZD802	DDTZG082CS00	D-ZENER MTZ8.2C
ZD803		
IC803	ICDG00151S10	IC D.S.P LC7860KA
IC805	ICDG00470SQ0	IC C-MOS RAM GM76C28-10
IC806	ICDG00590SE0	IC D/A CONVERT KDA0316
IC804	ICLN00720S10	IC S.P LA9200NM
IC807	ICOP00130SE0	IC OP AMP MC4558S
IC808		
IC809		
IC810		
IC802	ICRG00030SD0	IC REG KIA79L006P
IC801	ICRG00040SE0	IC REG MC7805C
L801	KIRO00290E10	COIL REC OSC ARO029
X801	KTRE00100086	RESONATOR FCR8.64MCF
Q801	TRTA0008YSD0	TR KTA-1266Y
Q802		
Q804		
Q809		
Q810		
Q813	TRTA0012YSD0	TR KTA966A-Y
Q814		
Q807	TRTC0001BSD0	KTC2878-B
Q816		
Q817		
Q803	TRTC0016YSD0	TR KTC-319Y
Q806		
808	TRTC0039YSD0	TR KTC2236A-Y
Q811		
Q812		
Q815		
Q818	TRTD00200SD0	TR KTD-1302
Q819		
VR801	VFABA005B103	R-SEMI FIXED RH0615C100-103 10KB
VR802	VFABA005B104	R-SEMI FIXED RH0615C100-104 100KB
VR803	VFABA005B473	R-SEMI FIXED RH0615C100-473 47KB
VR804	VFABA005B223	R-SEMI FIXED RH0615C100-223 22KB

V. PARTS LIST

7. TUNER P.C BOARD

Ref. No.	Part No.	Description
CF101	BTCE00152107	FILTER CERAMIC SFE10.7MJA 10H-A
CF103	BTCE00152107	FILTER CERAMIC SFE10.7MJA 10H-A
CF102	BTCE00130004	FILTER CERAMIC SFU-450B
VD101	DDSV0003AS30	DIODE-VVC 1SV149A
VD102		
VD103		
VD104		
D108	DDTR00020T10	DIODE-RECTIFIER 1N4002
D101	DDTS00030SOO	D-SI 1S2471
D102		
D103		
D104		
D105		
D106		
D109		
D111	DDTS00100SOO	D-SI 1SS135 [SW]
D112	(JW102)	
ZD102	DDTZG051BSO0	D-ZENER MTZ5.1B
ZD101	DDTZG075BSO0	D-ZENER MTZ7.5B
IC102	ICDG00460S30	IC TC9227P
IC103	ICLN00070SD0	IC KIA7343P
IC101	ICLN00100SD0	IC KIA7758P
T103	IFAA00130E20	IFT AM AAA013
T105	IFAD00040E20	IFT AM DET AAD004
T104	IFFD00070E20	IFT FD AFD007
T106	KIAO00240E20	COIL AAO 024 MW OSC
T107	KIAO00250E20	COIL AAO 025 LW OSC
T108	KIMLA0020E20	COIL AFL-002
T102	KIAT00300E20	COIL AAT-030 LW ANT
T101	KIAT00350E20	COIL AAT-035 MW ANT
T109	KIMLA0010E60	COIL AMA-001A 19KHz FILTER
T110		
TE101	TEAT0005103R	TERMINAL AK1/2-1058A
Q106	TRTA0008GSD0	TR KTA1266-GR
Q119		
Q116	TRTA0043ESOS	TR DTA-114E-S
Q117		
Q112	TRTC0010YSD0	TR KTC1923-Y
Q101	TRTC0016GSD0	TR KTC3198-GR
Q102		
Q109	TRTC0016GSD0	TR KTC3198-GR
Q110		
Q113		
Q114		
Q115		
Q118		
Q120	TRTC0061ESOS	TR DTC124E-S
Q107	TRTC0062ESOS	TR DTC114E-S
Q104	TRTD00200SD0	TR KTD-1302
Q105		
SV101	VFABA005B103	SEMI FIXED RH0615C100-103 10KB
FE101	TUFF0012000D	FRONT-END FE415-G11 F.T.Z
SV101	VFABA005B103	SEMI FIXED RH0615C100-103 10KB

8. FRONT P.C BOARD

Ref. No.	Part No.	Description
D201	DDTS00030SOO	D-SI 1S2471
D202		

Ref. No.	Part No.	Description
D204		
D205		
D206		
D207		
D208		[SW]
D209		
D212		
D213		
D214		
D215		
D216		
L1	DPLA0019000L	LAMP 150mA 6.3V
L2		
L201		
L202		
LD201	DPLC0009000T	DISPLAY HDL7332-5A2P02GA
LD701	DPLC0010000P	DISPLAY HDL7333-5A6R022A
IC202	ICHY00120TL0	REMOTE RX KRM-50M2
IC201	ICMP00171S30	IC TCM9110-X014
IC701	ICMP00500S10	IC TCD9103-006-1435
ZX201	KTAL00040072	CRYSTAL HC-49/U 7.2MHz
XL701	KTRE00090040	RESONATOR CST4.00MGW
S201	SWTA00180060	SW-TACT SKHVBE
S202		
S203		
S204		
S205		
S206		
S207		
S208		
S209		
S210		
S211		
S212		
S213		
S214		
S215	SWTA00180060	SW-TACT SKHVBE
S216		
S701		
S702		
S703		
S704		
S705		
Q701	TRTC0016GSD0	TR KTC-3198GR

9. MAIN POWER/TAPE P.C BOARD

Ref. No.	Part No.	Description
D971	DDMR00191T11	D-RECTIFIER GP20-02A
D972		
D973		
D974		
D959	DDMR00210T11	D-RECTIFIER 1N5402
D960		
D961		
D962		
D311	DDTR00020T10	D-RECTIFIER 1N4002
D963		
D964		
D965		
D966		
D967		

V. PARTS LIST

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
D968			R959	RFUZF470J001	R-FUSIBLE 1/4W 47ohm
D969			R1004	RMOHH4R7J030	R-METAL 1W 4.7ohm
D970			R948		
D980			R963		
D981			R969		
D985			R987	RMOHH471J030	R-METAL 1W 470ohm
D987			R990		
D988			JK952	SKPH0016266W	HTJ-064-04A MIC JACK
D301	DDTS00300SQ0	D-SI 1S2471	JK951	SHPH0016366W	HTJ-064-04B HEAD PHONE JACK
D302			JK301	SKRC00021040	AP4-0032A RCA JACK
D303			SW301	SWSL00128012	00120050 SW-SLIDE BEAT CUT
D304			Q310	TRTA0008GSD0	TR KTA1266-GR
D305			Q312		
D306			Q957	TRTA0008YSD0	TR KTA1266-Y
D307			Q964		
D308			Q966		
D309			Q327	TRTA0009YSD0	TR KTA1271-Y
D310			Q958	TRTA0012YSD0	TR KTA966A-Y
D975			Q959		
D976			Q326	TRTC0008YSD0	TR KTC2120-Y
D977			Q301	TRTC0016GSD0	TR KTC3198-GR
D978			Q302		
D979			Q303		
D980			Q311		
ZD451	DDTZG0510SQ0	D-ZENER MTZ5.1	Q315		
F904	FGFBS2002137	FUSE T250V 2A	Q316		
IC451	ICCM00170SQ0	IC GD4052B	Q317		
IC452			Q318		
IC302	ICDG00370S20	IC NPD1330HA	Q319		
IC951	ICHP00090S10	IC STK4132 II	Q320		
IC301	ICLN00120SD0	IC KIA7784P	Q322		
IC303	ICLN00870S40	IC CXA1102P	Q323		
IC304	ICOP00130SE0	IC MC4558S	Q324		
IC453	ICOP00131SE0	IC MC4558C	Q325		
IC501			Q1021	TRTC0016YSD0	TR KTC3198-Y
IC955	ICRG00090SE0	IC MC7806C	Q954		
IC956			Q956		
IC953	ICRG00190SE0	IC MC7912C	Q963		
IC952	ICRG00217SE0	IC MC7812C	Q955	TRTC0039YSD0	TR KTC2236-Y
IC954			Q344	TRTC0061ESOS	TR DTC124E-S
L952	KIBK00050E40	COIL ABK005 2.2μH	Q348		
L951			Q949		
L305	KIRK00150E60	COIL ARK-015A 8.2ohm REC CHOCK	Q960		
L306			Q313	TRTC0062ESOS	TR DTC114E-S
T301	KIRO00180E20	COIL ARO018 REC OSC	Q314		
L303	KIRP00040E60	COIL ARP004A REC TRAP	Q304	TRTC0094YSD0	TR KTC3199-Y
L304			Q305		
L301	KIRP00050E60	COIL ARP005A REC TRAP	Q306		
L302			Q307		
R1003	RCMMJR22K400	R-CEMENT 2W 0.22ohm	Q308		
R1005			Q309		
R1018	RFUMGR473130	R-FUSIBLE 1/2W 0.47ohm	Q328		
R1033			Q329		
R1034			Q330		
R996			Q331		
FR301	RFUMF2R2J120	R-FUSIBLE 1/4W 2.2ohm	Q334		
FR302	RFUMF4R7J120	R-FUSIBLE 1/4W 4.7ohm	Q337		
R1007	RFUMF560J120	R-FUSIBLE 1/4W 56ohm	Q338		
R1013	RFUMG1R0J130	R-FUSIBLE 1/2W 1ohm	Q339		
R1014	RFUMG1R0J130	R-FUSIBLE 1/2W 1ohm	Q340		
R993			Q341		
R994			Q342		
			Q343		

V. PARTS LIST

Ref. No.	Part No.	Description
Q321	TRTD00200SD0	TR KTD-1302
Q332		
Q333		
Q965		
VR301	VFABA005B223	R-SEMI RH0615C100-223 22KB
VR302		
VR303		
VR304		
VR307		
VR308		
VR305	VFABA005B224	R-SEMI RH0615C100-224 220KB
VR306		
L1001	KORB00030003	CORE-BEADS BFD 3514 R2F

10. MAIN CONTROL P.C BOARD

Ref. No.	Part No.	Description
D802	DDTR00020T10	D-RECTIFIER 1N4002
D803		
D804		
D805		
D751	DDTS00030SO0	D-SI 1S2471
D752		
D754		
D801		
D806		
D807		
D808		
D851		
D852		
D853		
D854		
D855		
D856		
D857		
D858		
ZD701	DDTZG0560SO0	D-ZENER MTZ5.6
ZD801	DDTZG082CS00	D-ZENER MTZ8.2C
IC751	ICCM20200SH0	IC MB88306
IC752		
IC702	ICDG00140S10	IC VOLUME LC7520
IC801	ICDG00560SB0	IC BA6208
IC701	ICLN00710S90	IC M5229P
IC703		
IC753	ICMP00520S20	IC UPD75108GF-R30-3BE
IC851	ICOP00121SE0	IC LM324
IC852		
X701	KTRE00030041	RESONATOR CSA4.19MG
AR801	NERXJ0044103	NETWORK R, RGLD4-103J 10K X 4
AR802		
AR701	NERXJ0047105	NETWORK R, RGLD7-105G 1M X 7
AR702		
Q801	TRTA0012YS00	TR KTA966A-Y
Q804		
Q809		
Q810		
Q811		
Q813		
Q815		
Q803	TRTA0042ESOS	TR DTA124E-S
Q806		
Q818	TRTC0008YS00	TR KTC2120-Y
Q819		

Ref. No.	Part No.	Description
Q802	TRTC0016YS00	TR KTC3198-Y
Q805		
Q808	TRTC0060ESOS	TR DTC144E-S
Q751	TRTC0061ESOS	TR DTC124E-S
Q752		
Q754		
Q812	TRTC0062ESOS	TR DTC114E-S
Q814		
Q816		
Q817		
Q701	TRTD00200SD0	TR KTD-1302
Q702		
VR801	VFABA005B222	R-SEMI RH0615C100-222 2.2KB
VR803		
VR802	VFABA005B102	R-SEMI RH0615C 1KB
VR804		
VR701	VWBDF008B104	VR RK16Y12MC2RA 100KB X 2

11. MAIN FRONT P.C BOARD

Ref. No.	Part No.	Description
D901	DDTS00030SO0	D-SI 1S2471
ZD901	DDTZG0910SO0	D-ZENER MTZ9.1
L901	DPLA0019000L	LAMP 150mA 0.3V
L902		
Z901	DPLC0009100E	DISPLAY HDL7331-5A2P02GA
LD831	DPLT00462DY3	DOT LED AL-134YD
LD832		
LD834		
LD835		
LD945	DPLT00471DY2	DOT LED AL-423YD [S]
LD943	DPLT00472RR2	DOT LED AL-423RD
LD938	DPLT00492DY3	DOT LED AL-131YD
LD939		
LD940		
LD941		
LD942		
LD931	DPLT00492RR3	DOT LED AL-131RD
LD932		
LD933		
LD934		
LD935		
LD936		
LD833	DPLT00512RR2	DOT LED AL-424RD
IC931	ICDG00240S10	IC LC7561
IC932	ICOP00131SE0	IC MC4558C
SW837	SWPU00301038	SW-PUSH 00220014 (2C-2P)
SW839		
SW903		
SW844	SWSL00490054	SW-SLIDE KSA2340C
SW831	SWTA00180060	SW-TACT SKHVBE
SW832		
SW833		
SW834		
SW835		
SW836		
SW838		
SW840		
SW841		
SW842		
SW843		
SW901		

V. PARTS LIST

Ref. No.	Part No.	Description
SW902		
Q921	TRTC0016YSD0	TR KTC3198-Y
Q901	TRTC0094YSD0	TR KTC3199-Y
VR921	VRAED018C203	VR-ROTARY RK12K1130-20KC
VR901	VRAED019W104	VR-ROTARY RK12K1170-100KW

12. SUB P/T P.C BOARD

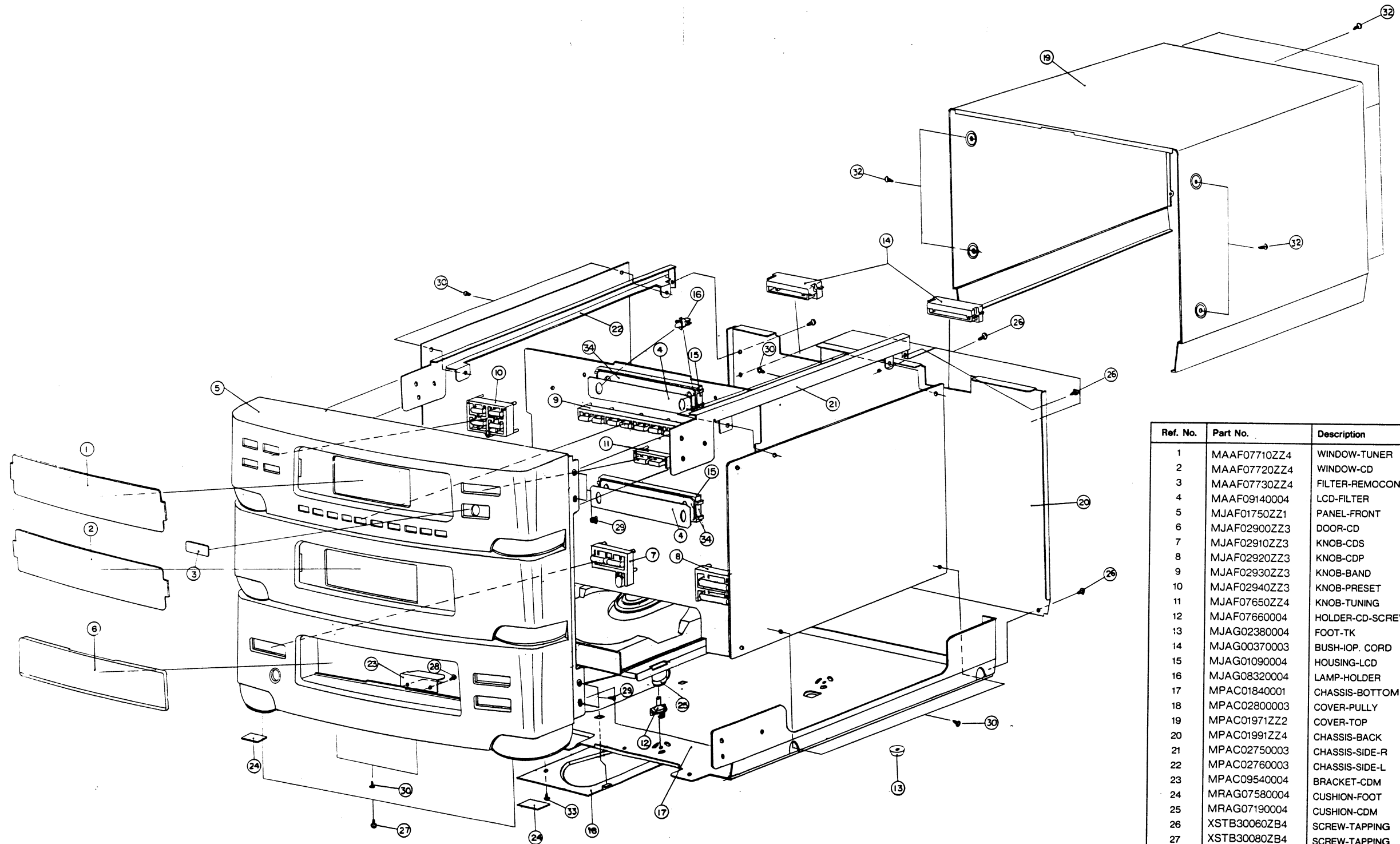
Ref. No.	Part No.	Description
J953	TESP0001008P	TEMINAL SPEAKER AU8-2021
C989	CACSU472M084	AC 400V SCF2G 472M12BS
D952	DDTR00020T10	D-RECTIFIER 1N4002
D954		
D955		
D956		
D957		
D958		
D953	DDTS00030SQ0	D-SI 1S2471
RY951	ESRY00010120	RELAY HR703V
RY952	ESRY00110121	RELAY JW1AFSN
F901	FGFBS1002137	FUSE 250V T 1A
SUB P/T	PTAC00910Y18	A35-091Y-V

13. REMOTE P.C BOARD

Ref. No.	Part No.	Description
CX001	KTRE00060004	RESONATOR CSB 455E
Q001	TRSC0016GSD0	TR KTC3198-GR
ID001	DPIR00021005	DOT IR LED KLN105B-B
IC001	ICMP00220S20	IC UPD6122G-001
D001	DDTS00050SB0	D-SI 1S2473
D002		
D003		

V. PARTS LIST

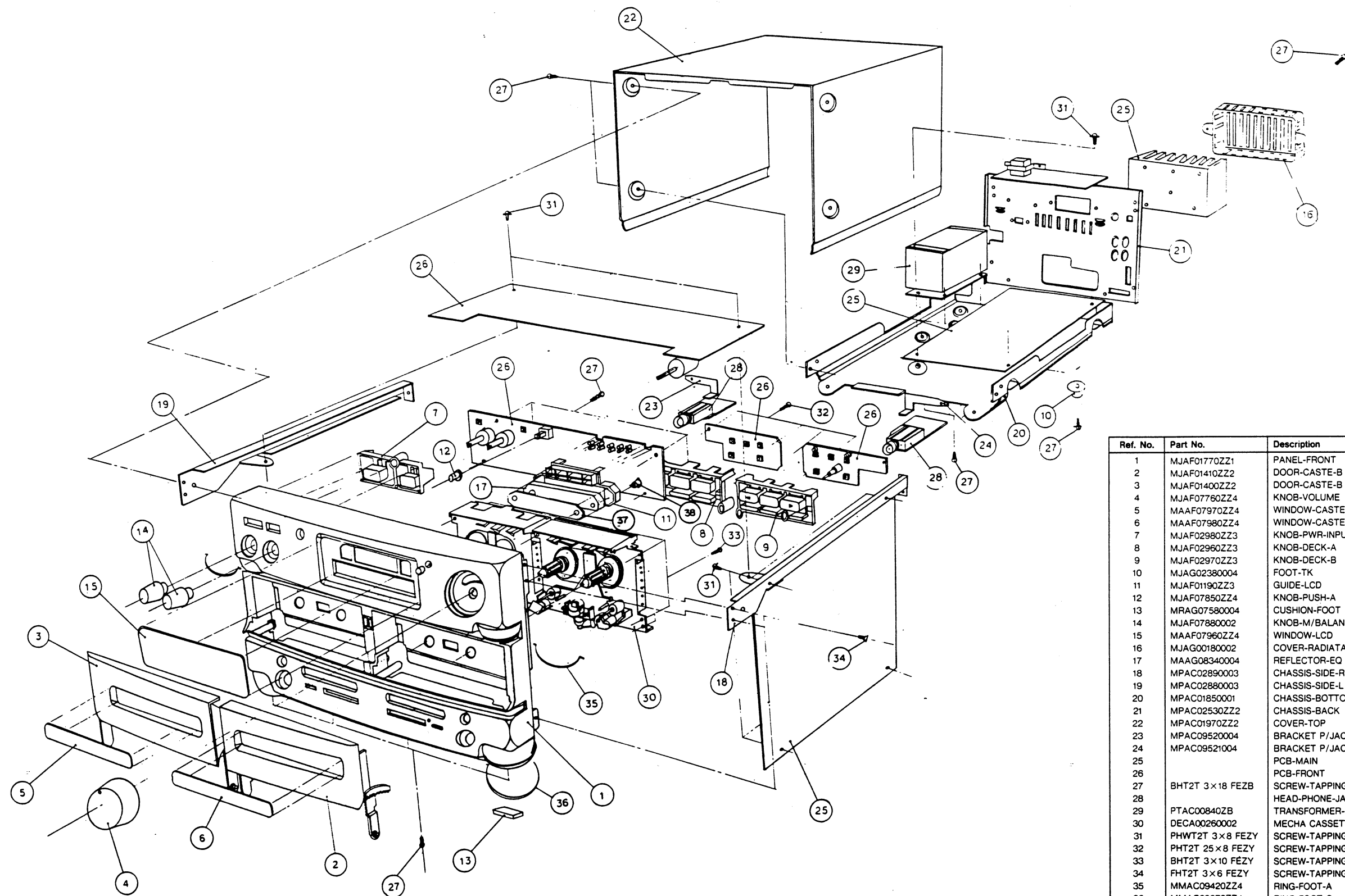
14. AC-MX450T FINAL ASSEMBLY



Ref. No.	Part No.	Description
1	MAAF07710ZZ4	WINDOW-TUNER
2	MAAF07720ZZ4	WINDOW-CD
3	MAAF07730ZZ4	FILTER-REMOCON
4	MAAF09140004	LCD-FILTER
5	MJAF01750ZZ1	PANEL-FRONT
6	MJAF02900ZZ3	DOOR-CD
7	MJAF02910ZZ3	KNOB-CDS
8	MJAF02920ZZ3	KNOB-CDP
9	MJAF02930ZZ3	KNOB-BAND
10	MJAF02940ZZ3	KNOB-PRESET
11	MJAF07650ZZ4	KNOB-TUNING
12	MJAF07660004	HOLDER-CD-SCREW
13	MJAG02380004	FOOT-TK
14	MJAG00370003	BUSH-IOP. CORD
15	MJAG01090004	HOUSING-LCD
16	MJAG08320004	LAMP-HOLDER
17	MPAC01840001	CHASSIS-BOTTOM
18	MPAC02800003	COVER-PULLY
19	MPAC01971ZZ2	COVER-TOP
20	MPAC01991ZZ4	CHASSIS-BACK
21	MPAC02750003	CHASSIS-SIDE-R
22	MPAC02760003	CHASSIS-SIDE-L
23	MPAC09540004	BRACKET-CDM
24	MRAG07580004	CUSHION-FOOT
25	MRAG07190004	CUSHION-CDM
26	XSTB30060ZB4	SCREW-TAPPING
27	XSTB30080ZB4	SCREW-TAPPING
28	XSTB30080ZY4	SCREW-TAPPING
29	XSTF30060ZY4	SCREW-TAPPING
30	XSTF30080ZB4	SCREW-TAPPING
31	XSTS30080ZY4	SCREW-TAPPING
32	XSTB30080ZB8	SCREW-TAPPING
33	XSTB30060ZY4	SCREW-TAPPING
34	MAAG08310004	LCD-REFLECTOR

V. PARTS LIST

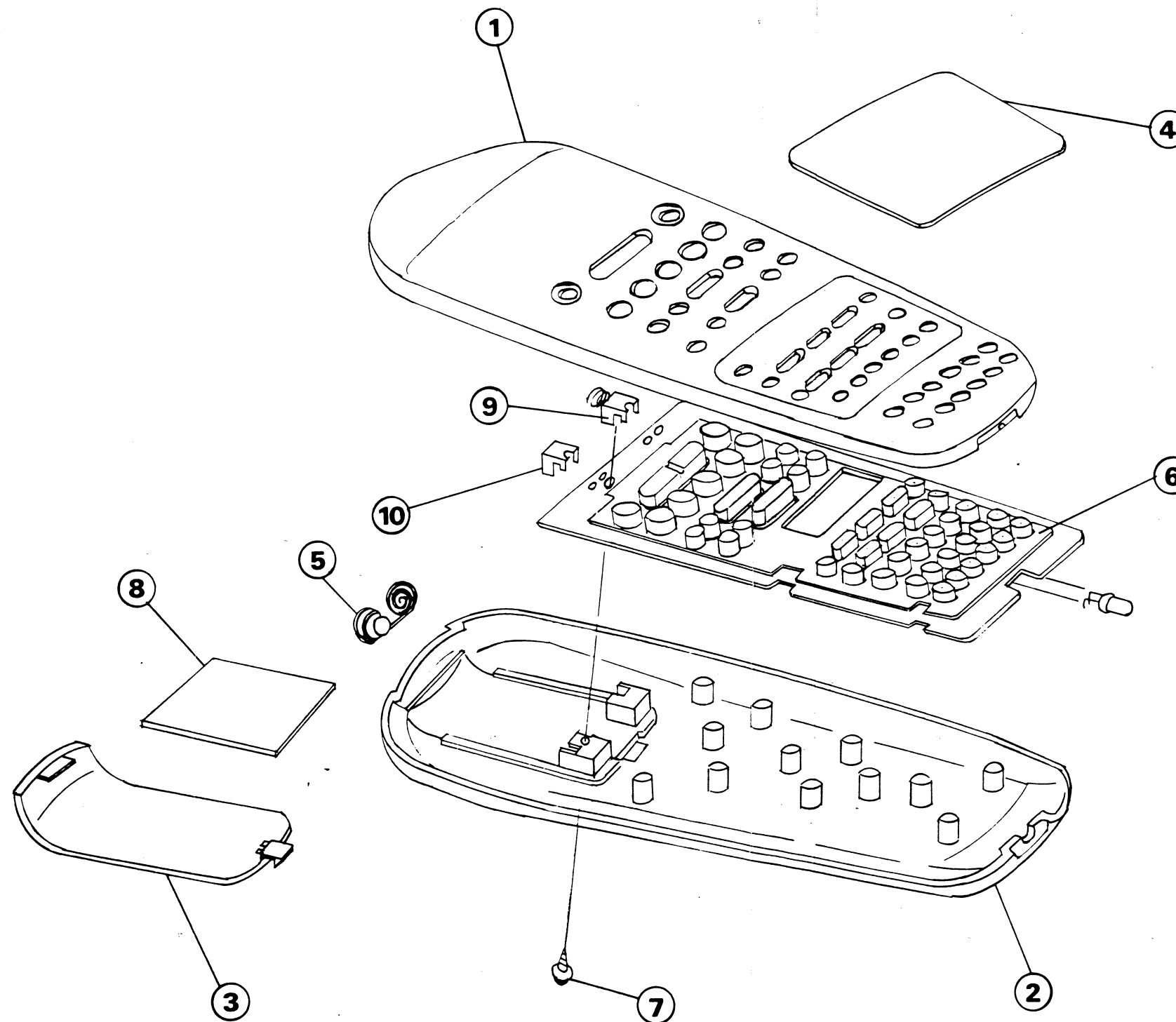
15. AC-MX450A FINAL ASSEMBLY



Ref. No.	Part No.	Description
1	MJAF01770ZZ1	PANEL-FRONT
2	MJAF01410ZZ2	DOOR-CASTE-B
3	MJAF01400ZZ2	DOOR-CASTE-B
4	MJAF07760ZZ4	KNOB-VOLUME
5	MAAF07970ZZ4	WINDOW-CASTE-A
6	MAAF07980ZZ4	WINDOW-CASTE-B
7	MJAF02980ZZ3	KNOB-PWR-INPUT
8	MJAF02960ZZ3	KNOB-DECK-A
9	MJAF02970ZZ3	KNOB-DECK-B
10	MJAG02380004	FOOT-TK
11	MJAF01190ZZ3	GUIDE-LCD
12	MJAF07850ZZ4	KNOB-PUSH-A
13	MRAG07580004	CUSHION-FOOT
14	MJAF07880002	KNOB-M/BALANCE
15	MAAF07960ZZ4	WINDOW-LCD
16	MJAG00180002	COVER-RADIATAR
17	MAAG08340004	REFLECTOR-EQ
18	MPAC02890003	CHASSIS-SIDE-R
19	MPAC02880003	CHASSIS-SIDE-L
20	MPAC01850001	CHASSIS-BOTTOM
21	MPAC02530ZZ2	CHASSIS-BACK
22	MPAC01970ZZ2	COVER-TOP
23	MPAC09520004	BRACKET P/JACK-L
24	MPAC09521004	BRACKET P/JACK-R
25		PCB-MAIN
26		PCB-FRONT
27	BHT2T 3×18 FEZB	SCREW-TAPPING
28		HEAD-PHONE-JACK
29	PTAC00840ZB	TRANSFORMER-POWER
30	DECA00260002	MECHA CASSETTE
31	PHWT2T 3×8 FEZY	SCREW-TAPPING
32	PHT2T 25×8 FEZY	SCREW-TAPPING
33	BHT2T 3×10 FEZY	SCREW-TAPPING
34	FHT2T 3×6 FEZY	SCREW-TAPPING
35	MMAC09420ZZ4	RING-FOOT-A
36	MMAC09970ZZ4	RING-FOOT-C
37	MAAG08360004	FILTER-LCD
38	MJAG08290004	HOLDER-LAMP

V. PARTS LIST

REMOTE ASSEMBLY



16. REMOTE ASSEMBLY

Ref. No.	Part No.	Description
1	MJAF01340ZZ2	COVER-UPPER
2	MJAF01350ZZ2	COVER-BOTTOM
3	MJAF02860ZZ3	COVER-BATTERY
4	MLAC09372ZZ4	PLATE-NAME
5	MMAC11060004	BATTERY-SPRING
6	MRAF01362ZZ2	PAD-KEY
7	XSTP25060ZY4	SCREW-TAPPING
8	YSAP09860004	CUSHION BATTERY
9	YVAP09640004	POLY-BAG
10	MMAC11070004	ASS'Y-BATTERY
11	MPAC09360004	TERMINAL CHARGE

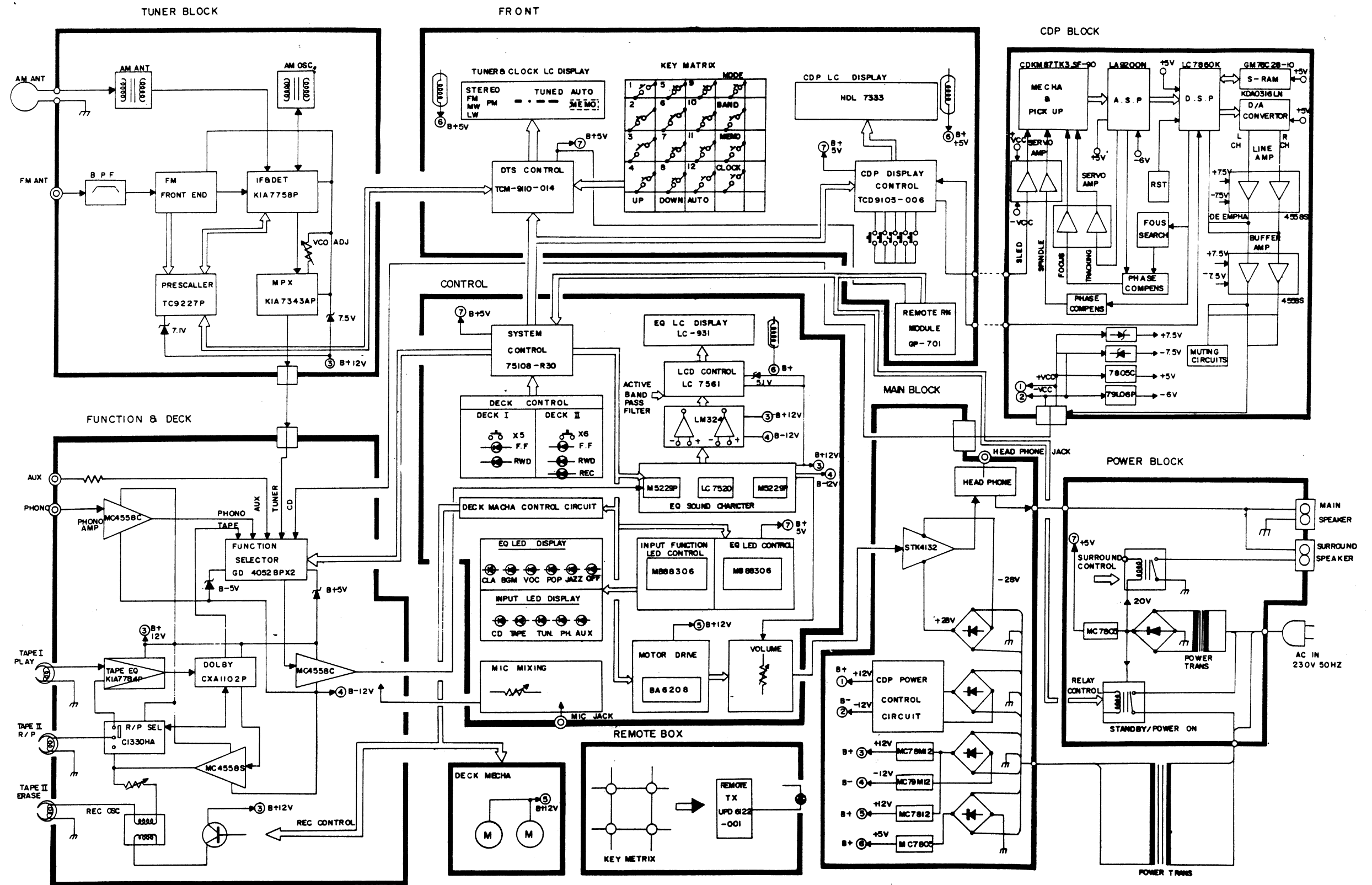
NOTE :

Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

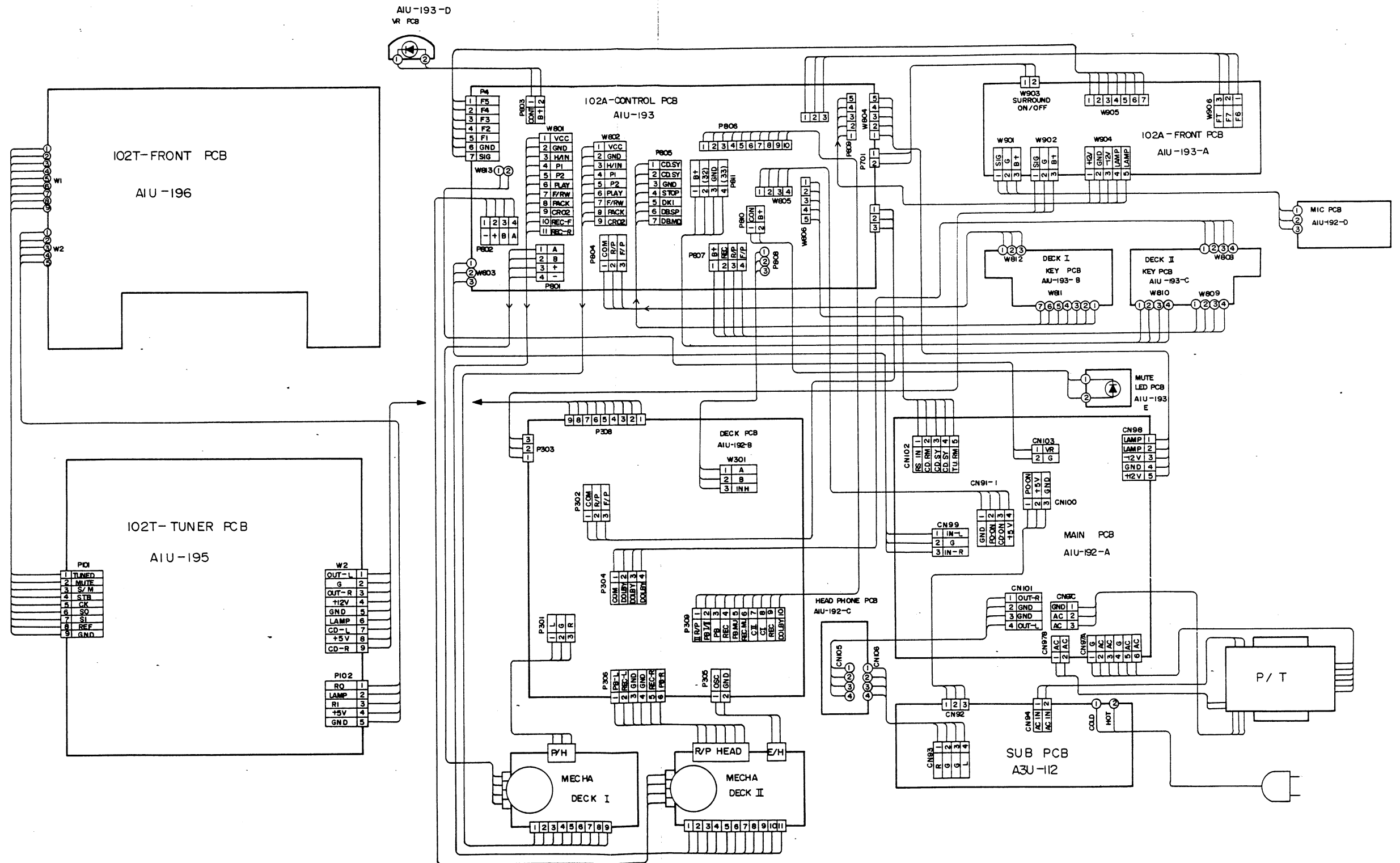
17. ACCESSORY

Ref. No.	Part No.	Description
1	ANTL00060E50	ANT LOOP AAN007
2	ANTW00020202	ANT-WIRE AFN-002

VI. BLOCK DIAGRAM



VII. WIRING DIAGRAM (AC-MX450)



VII. WIRING DIAGRAM (CD MAIN TOP)

CN1: LEAD WIRE

NO	LENGTH(m/m)	COLOR
1	300	GR
2	300	YE
3	300	OR
4	300	RE
5	300	BR
6	300	BK

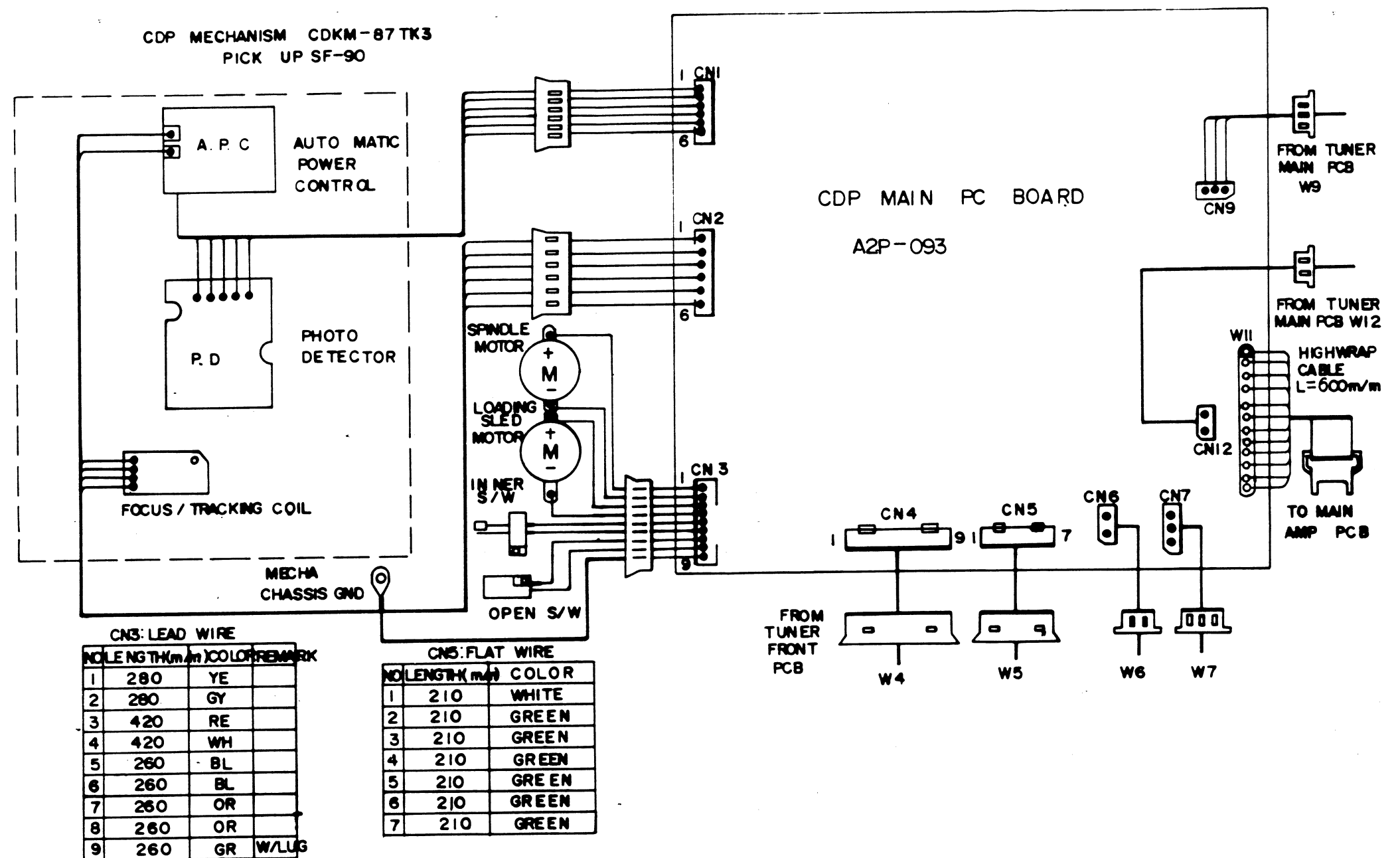
CN2: LEAD WIRE

NO	LENGTH(m/m)	COLOR
1	270	BK
2	270	RE
3	270	BR
4	270	VI
5	270	WH
6	270	GY

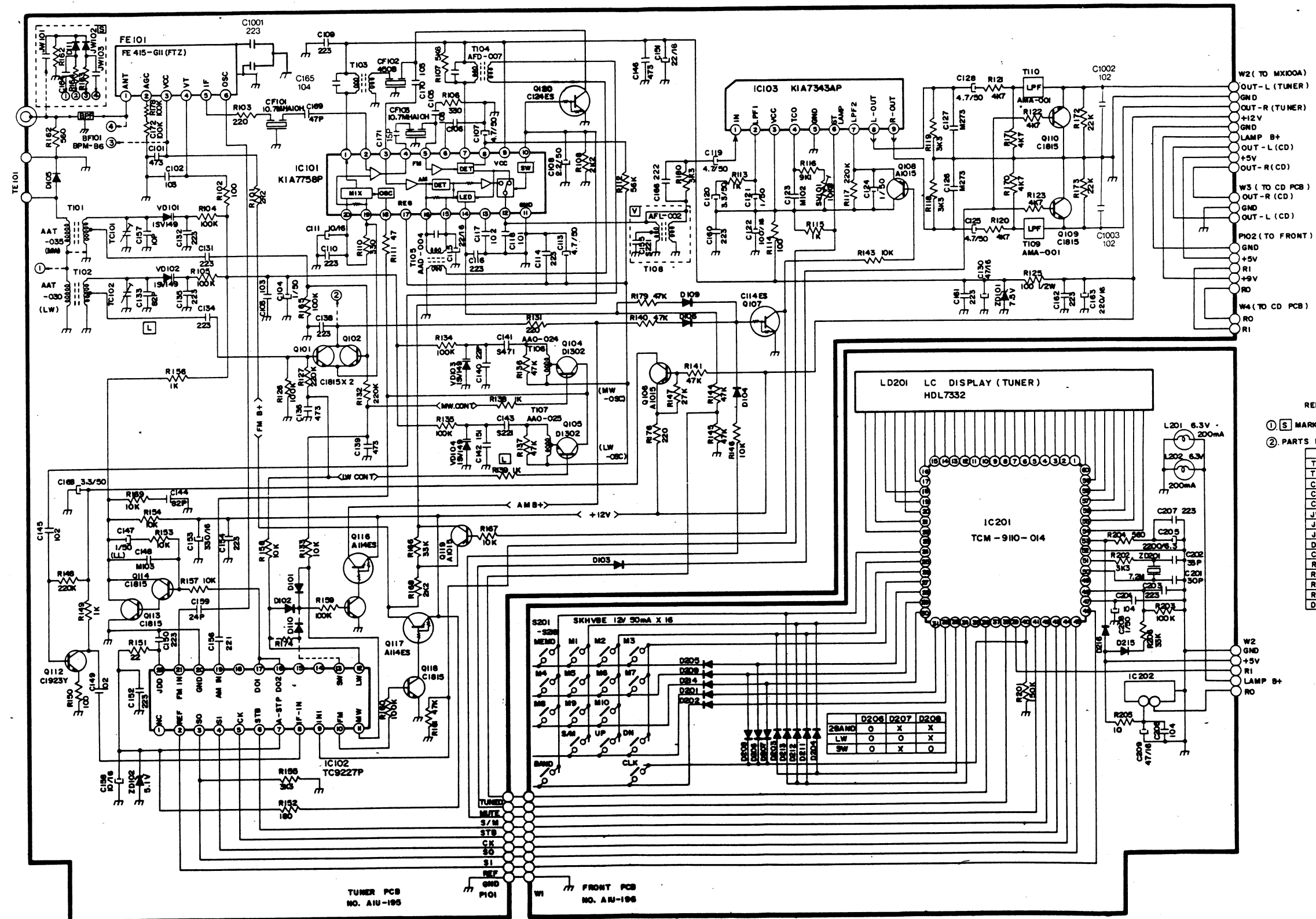
CN4: FLAT WIRE

NO	LENGTH(m/m)	COLOR
1	210	WHITE
2	210	YELLOW
3	210	YELLOW
4	210	YELLOW
5	210	YELLOW
6	210	YELLOW
7	210	YELLOW
8	210	YELLOW
9	210	YELLOW

CDP MECHANISM CDKM-87TK3
PICK UP SF-90



VIII. SCHEMATIC DIAGRAM (AC-MX450T TUNER MAIN (FM/MW/LW) & FRONT)



REMARKS I (SW)

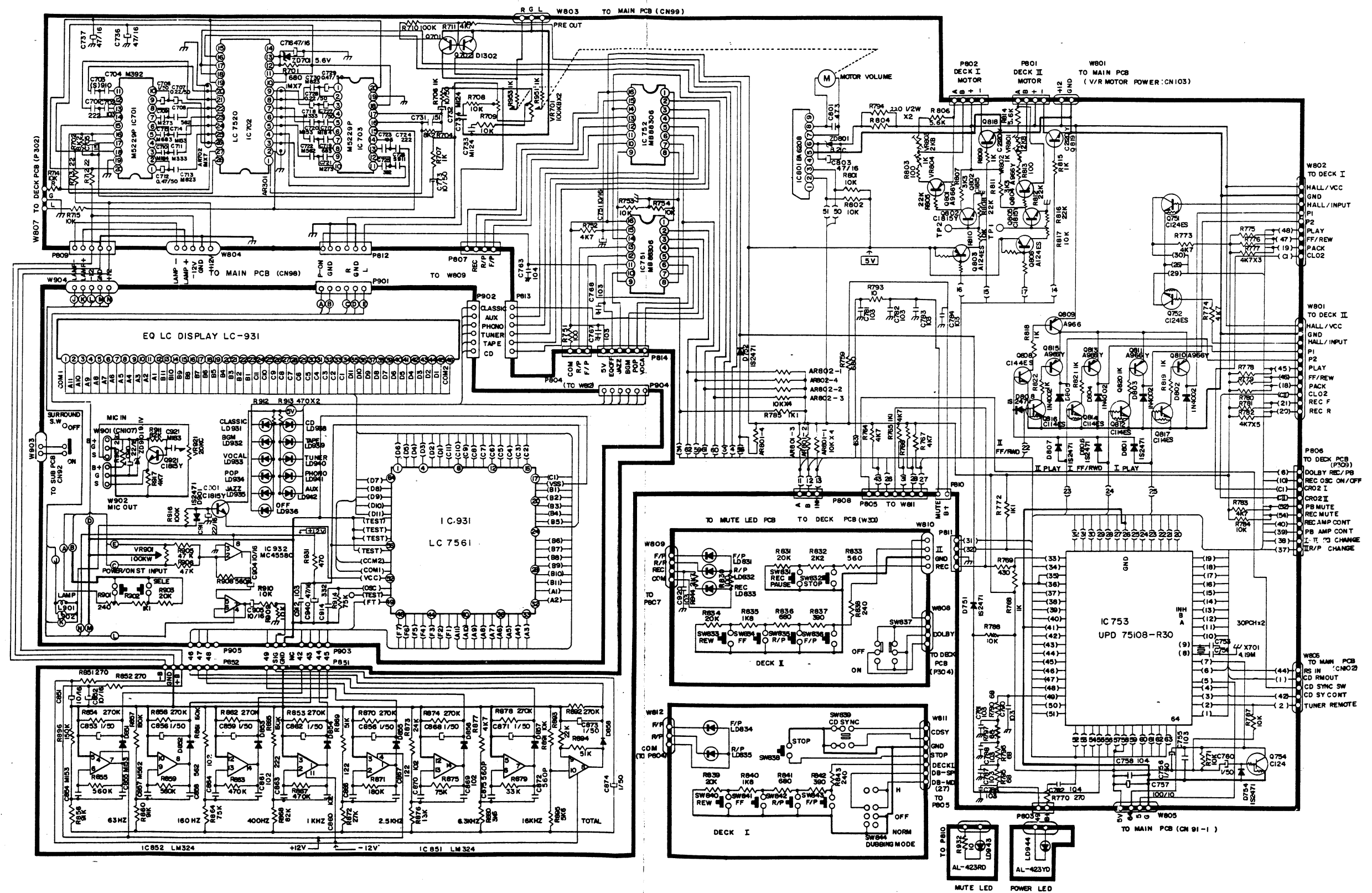
① S MARK IS SW MODEL ONLY.

② PARTS LIST

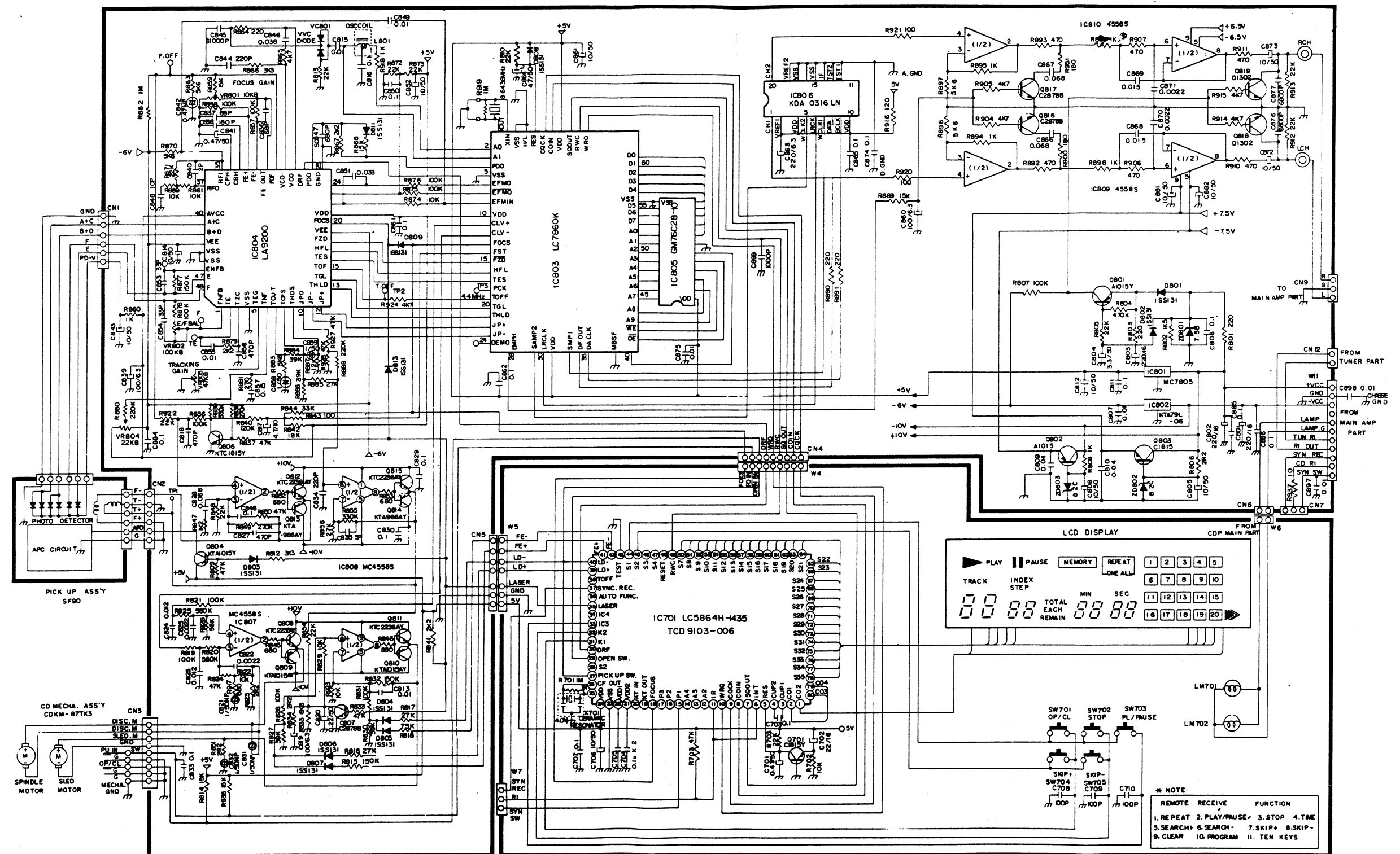
	LW	SW
T102	AAT-030	AAT-037
T107	AAC-022	AAC-026
C133	82P	15P
C142	150P	DEL
C143	5220P	S1000P
JW101	JP	C223
JW102	JP	ISS135
JW103	JP	C103
D111		ISS135
C164		C223
R162	560	1K
R163		4K7
R164		1K
R174		10K
D110		IS2471

REMARKS I
 NO TYPED DIODES ARE IS2471
 MARK IS "V"-VERSION ONLY.
 MARKS ARE LW MODEL ONLY.

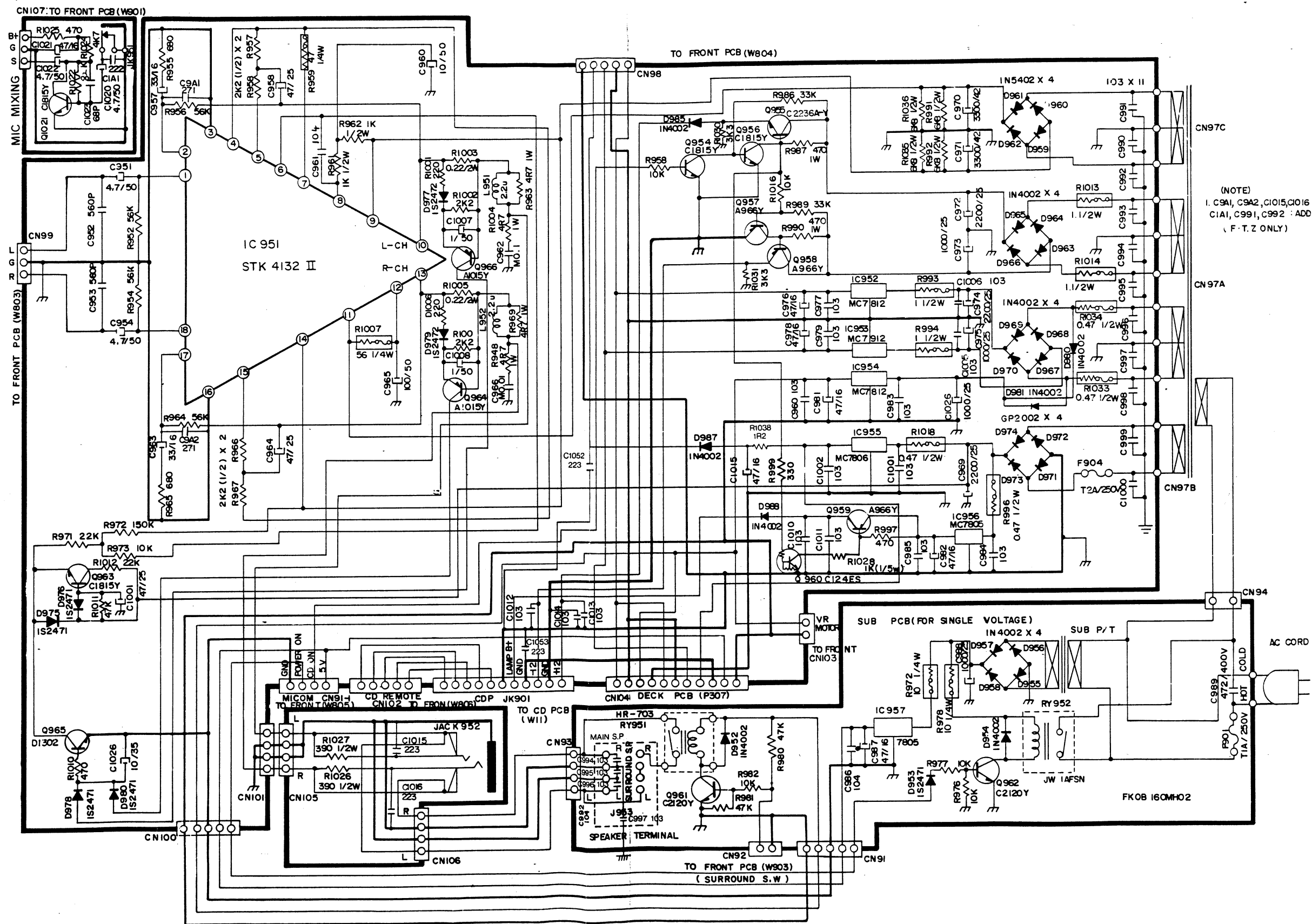
VIII. SCHEMATIC DIAGRAM (AC-MX450A CONTROL/FRONT)



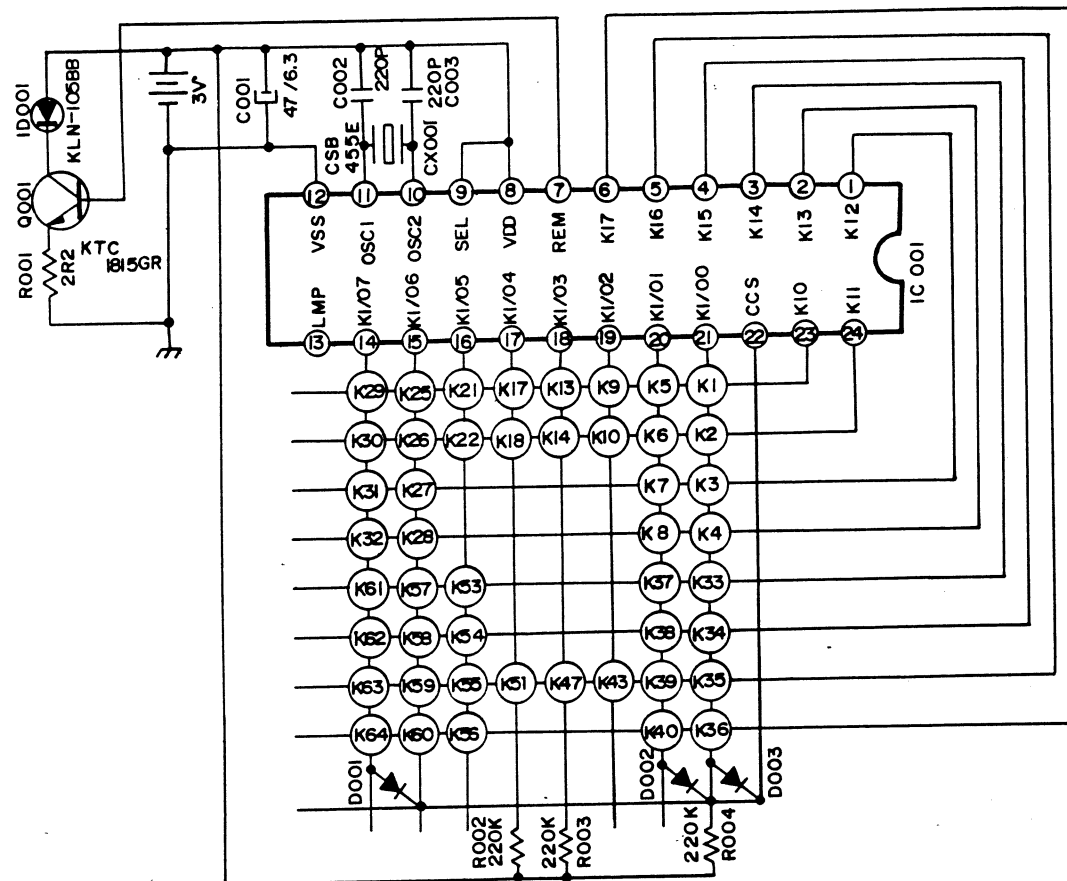
VIII. SCHEMATIC DIAGRAM (CD)



VIII. SCHEMATIC DIAGRAM (AC-MX450A MAIN & POWER)



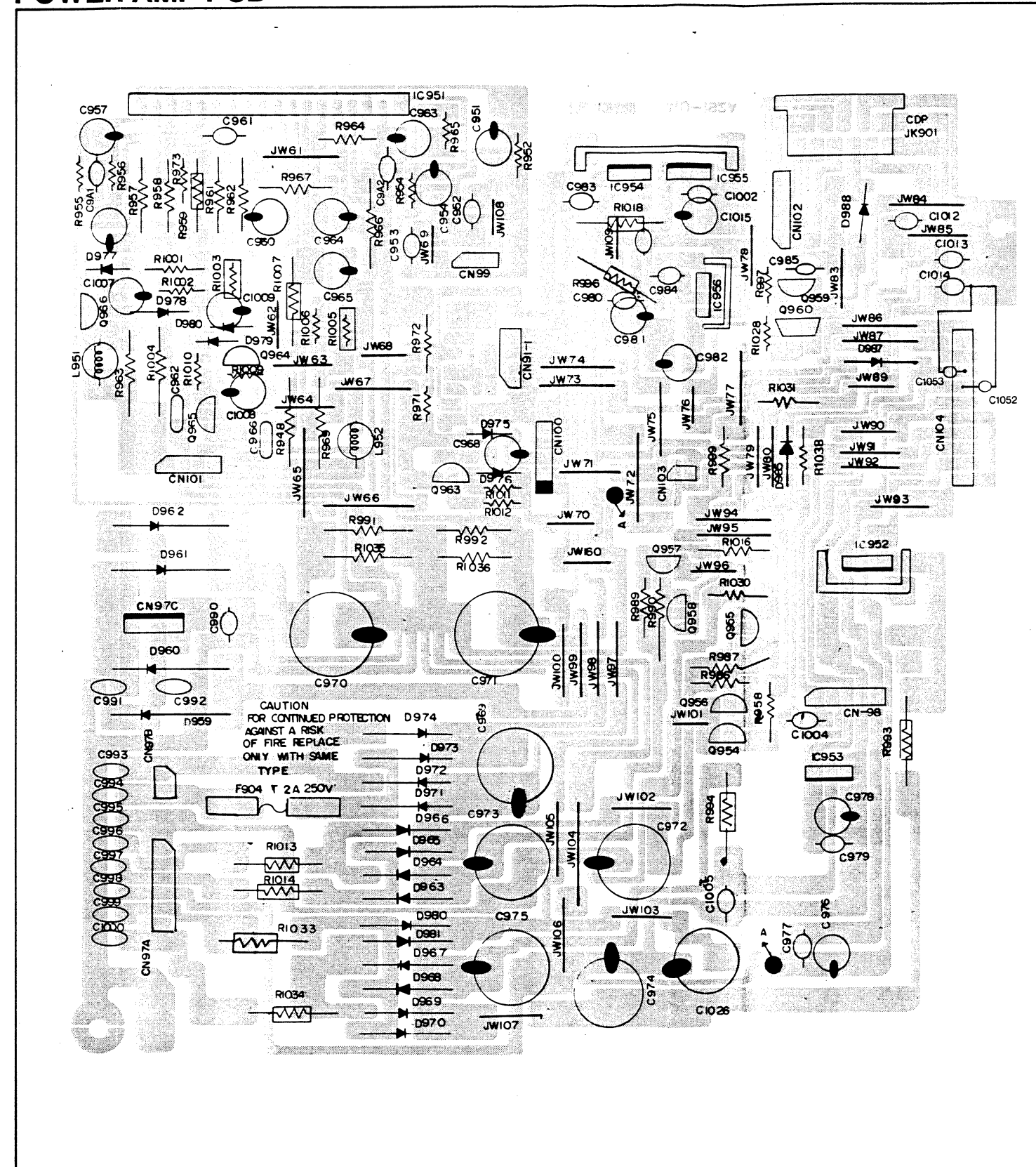
VIII. SCHEMATIC DIAGRAM (REMOTE)



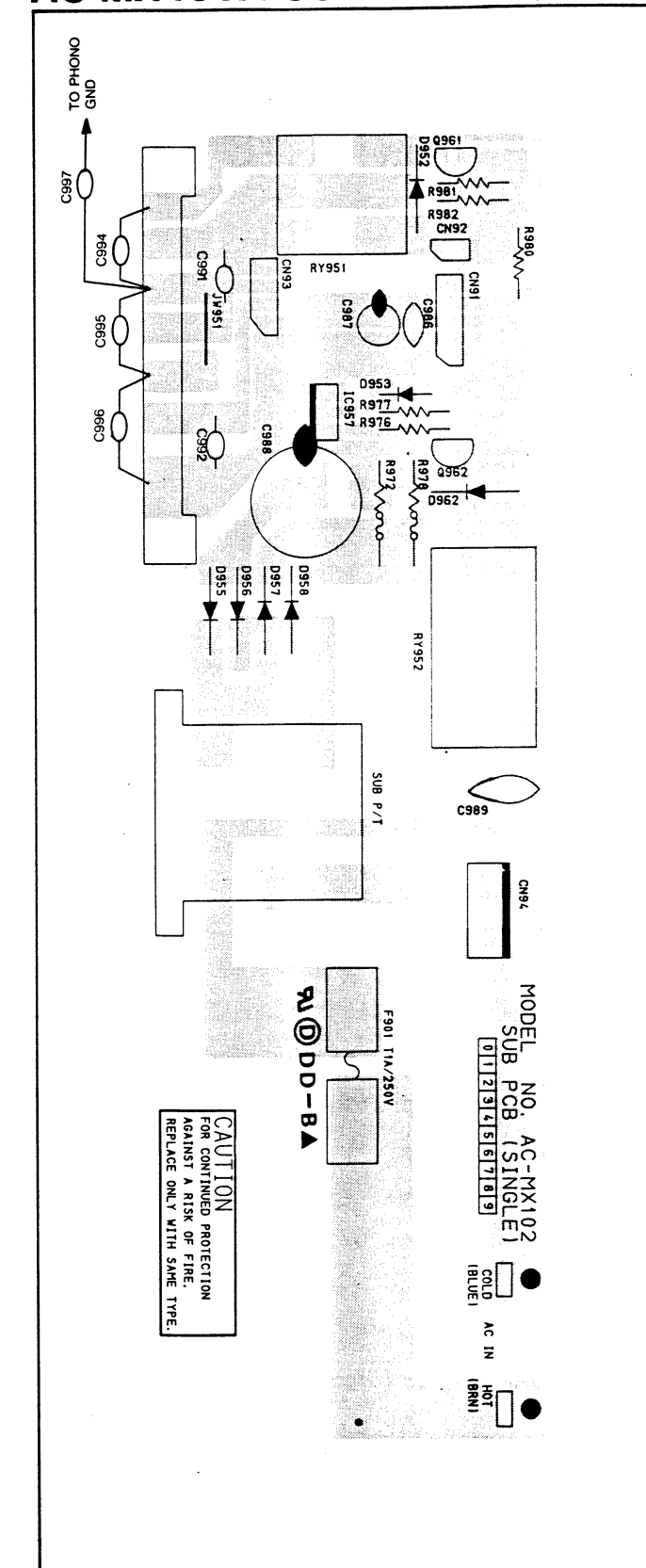
- | | | | |
|----------------------------------|--|--------------------------------------|---------------------------------------|
| K1. CD ☐ | K32. 4 | K17. MUTE | K53. 7 |
| K2. FUNCTION TUNER | K33. 1 | K18. FUNCTION AUX/VCR | K54. CLASSIC |
| K3. 6 | K34. POPS | K21. CD ☐ | K55. TAPE I ☐ |
| K4. TAPE II REC PAUSE | K35. TAPE -II ☐ | K22. CD CLEAR | K56. TAPE II ☐ |
| K5. FUNCTION TAPE | K36. 9 | K25. POWER ON/OFF | K57. 8 |
| K6. CD D/□ | K37. 2 | K26. FUNCTION CD | K58. BGM |
| K7. +10 | K38. 0 | K27. JAZZ | K59. TAPE II ☐ |
| K8. EQ OFF | K39. TAPE I ☐ | K28. TAPE I ☐ | K60. TAPE I ☐ |
| K9. VOLUME DOWN (V) | K40. VOCAL | K29. CD ☐ | K61. TAPE I ☐ |
| K10. FUNCTION PHONO | K43. VOLUME UP (^) | K30. CD PROG | K62. 3 |
| K13. CD ☐ | K47. CD TIME (MODE) | K31. 5 | K63. TAPE II ☐ |
| K44. CD REPEAT | K51. CD ☐ | | K64. TAPE I ☐ |

IX. PCB LAYOUT

POWER AMP PCB

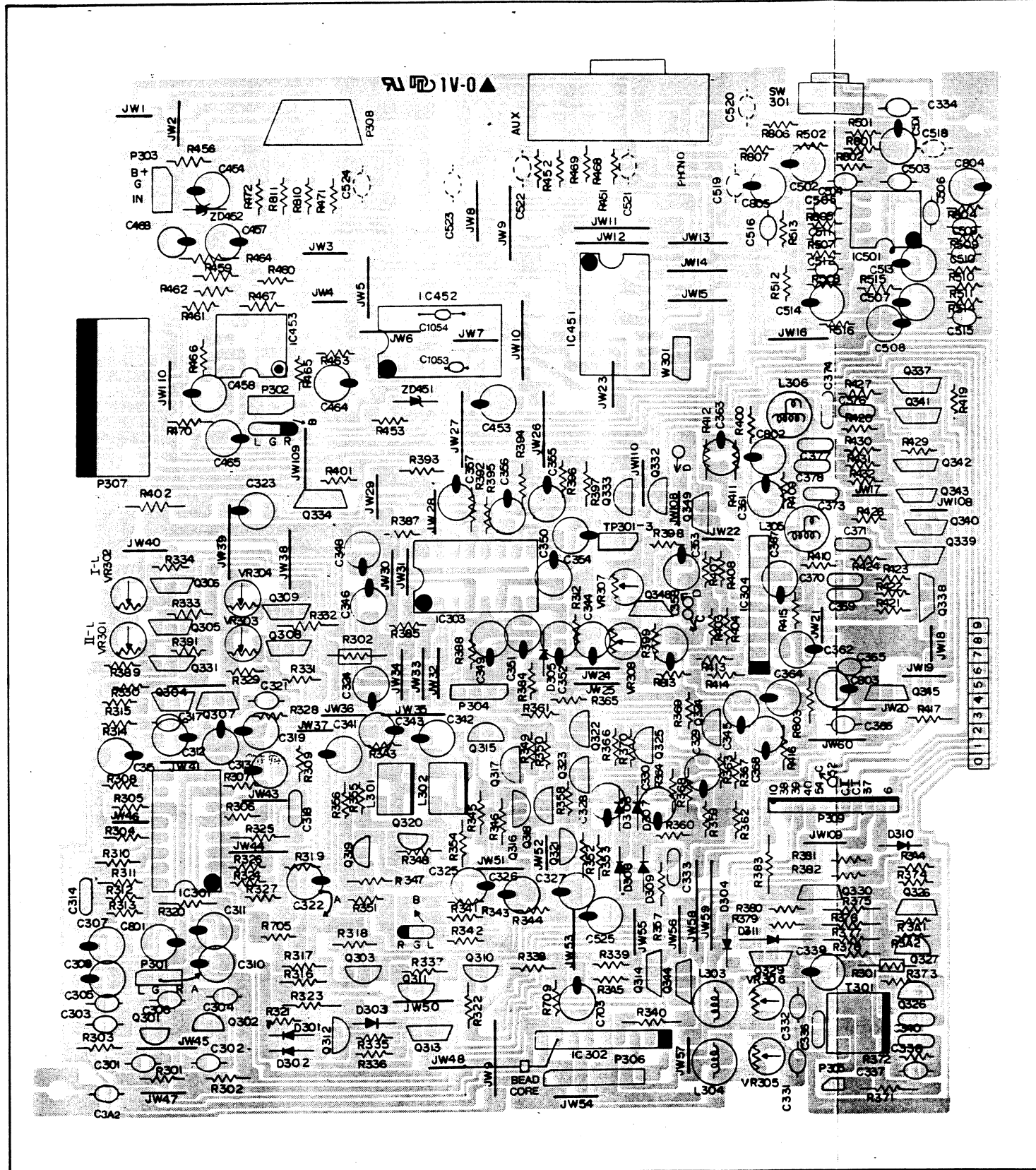


AC-MX450A SUB PCB



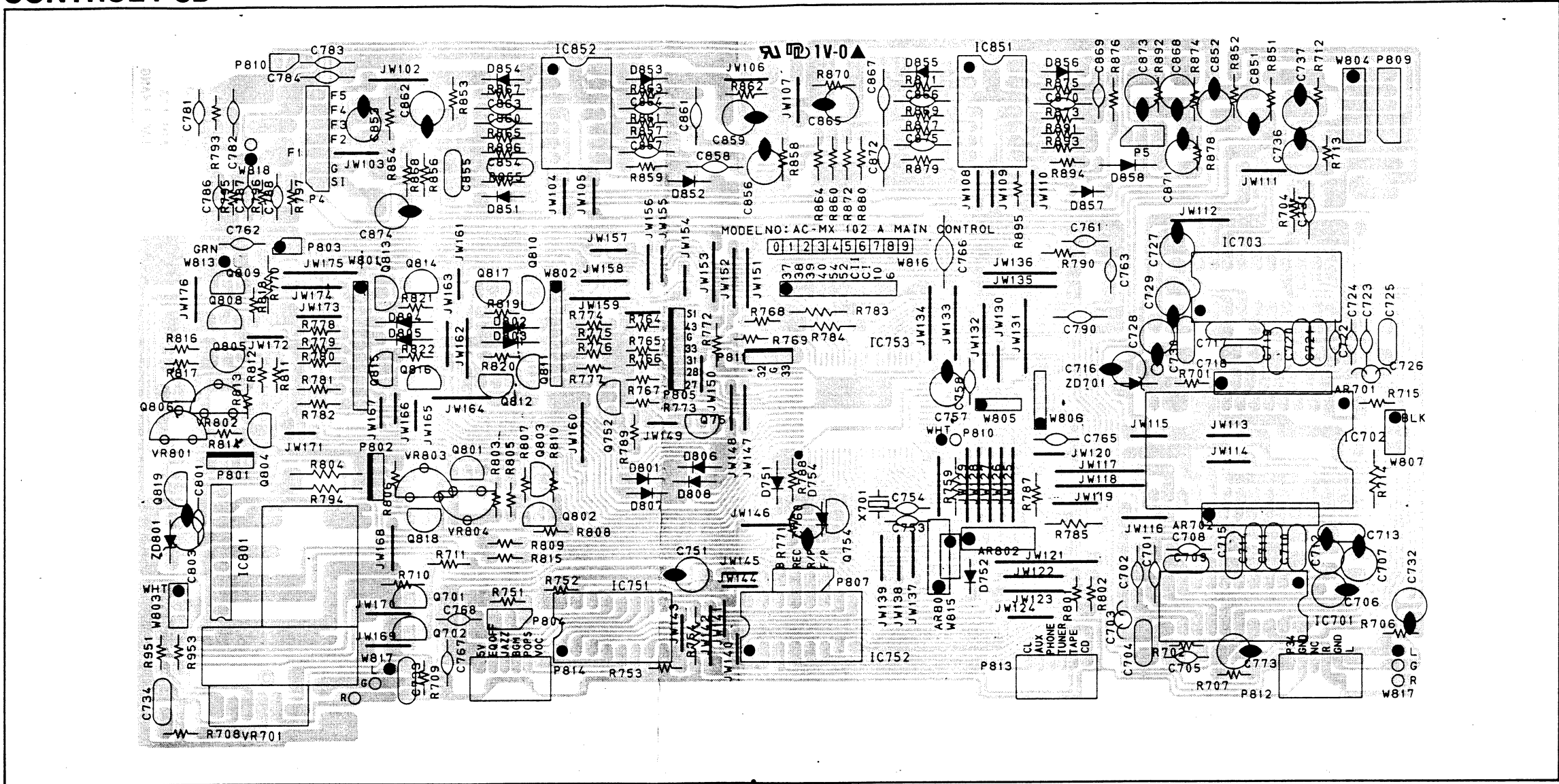
IX. PCB LAYOUT

DECK PCB

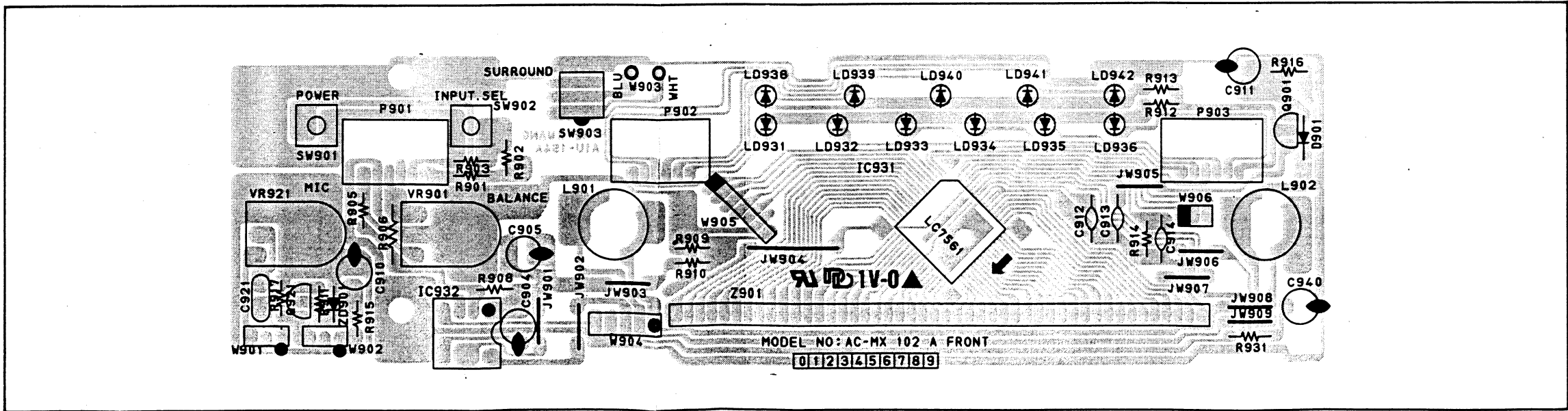


IX. PCB LAYOUT

CONTROL PCB

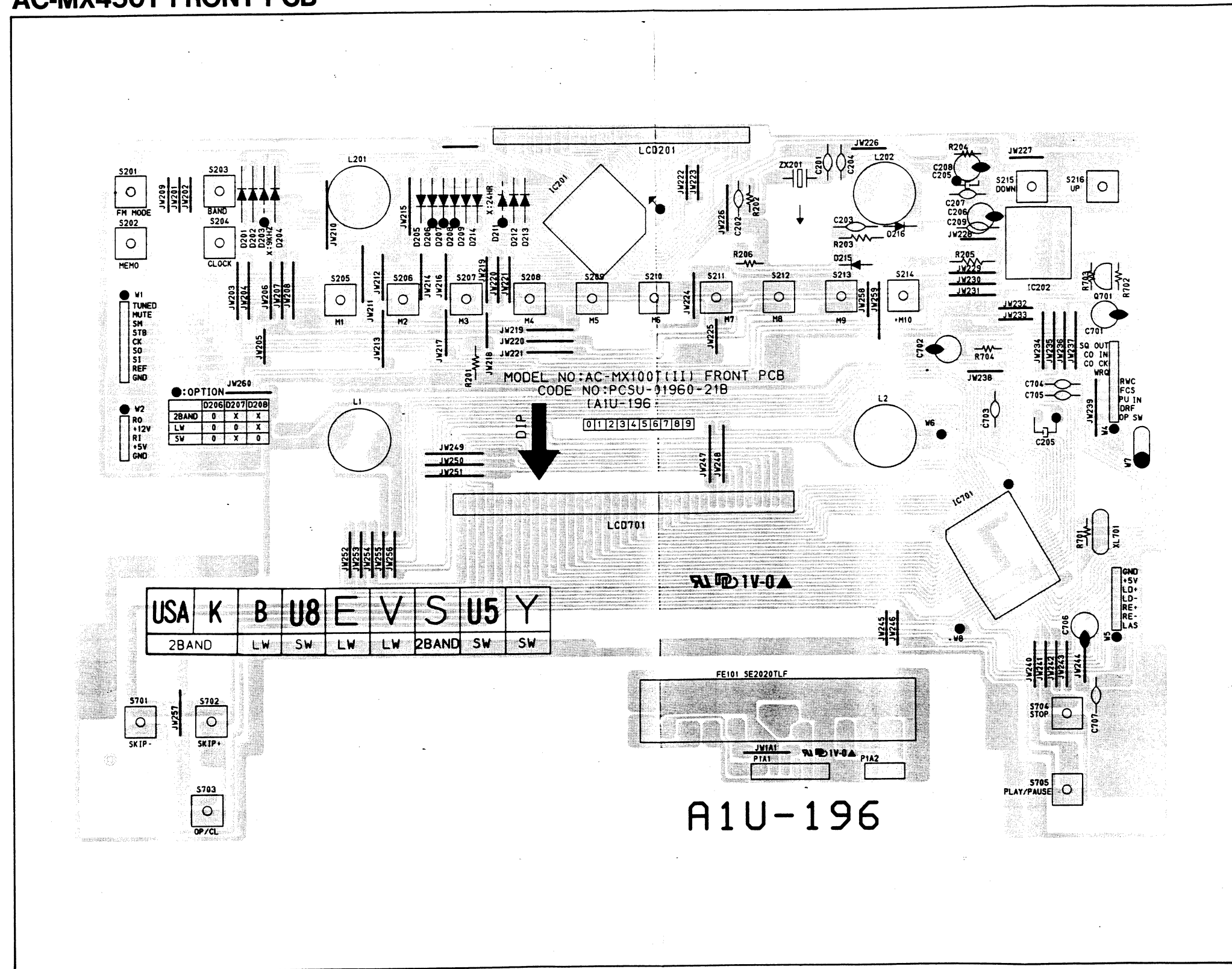


AC-MX450A FRONT PCB



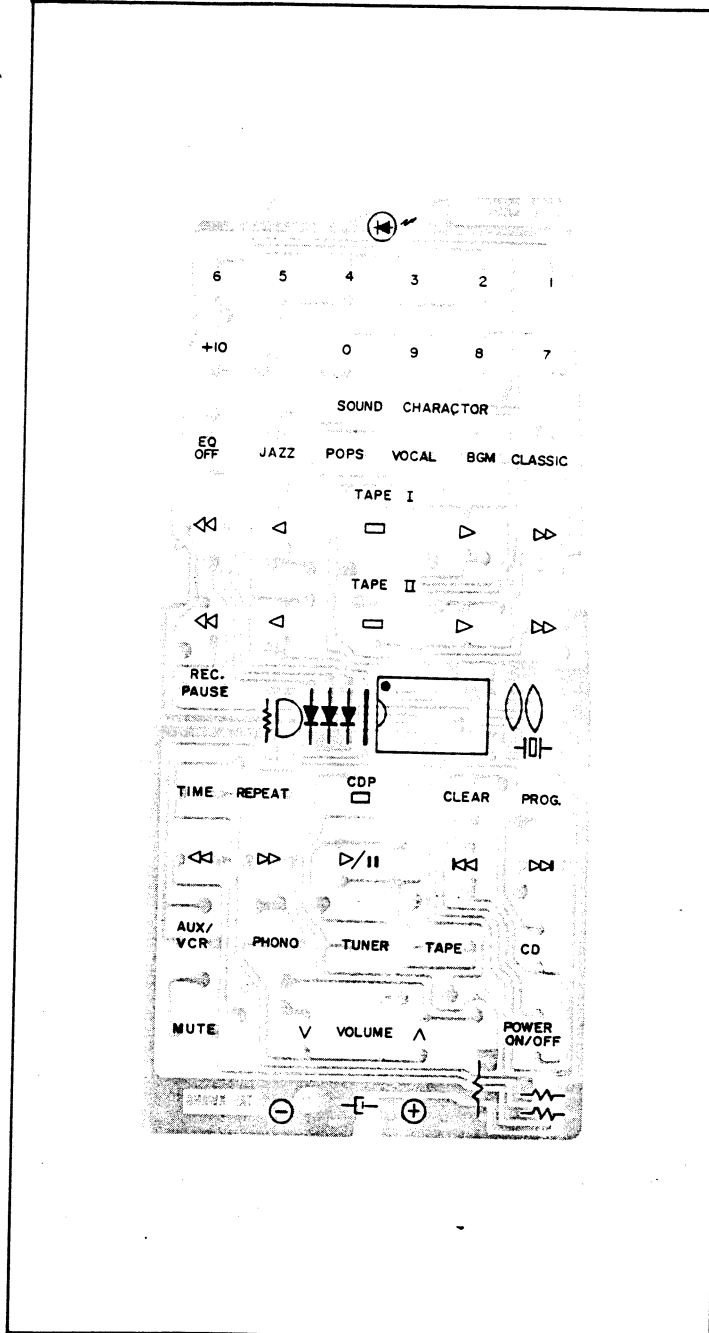
IX. PCB LAYOUT

AC-MX450T FRONT PCB

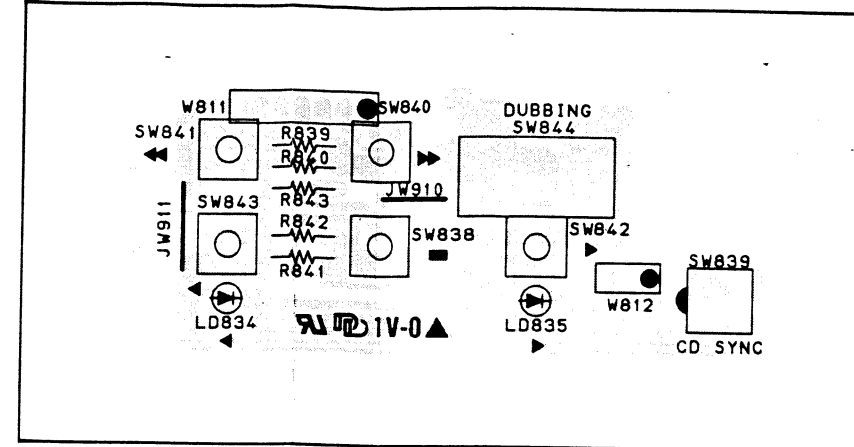


IX. PCB LAYOUT

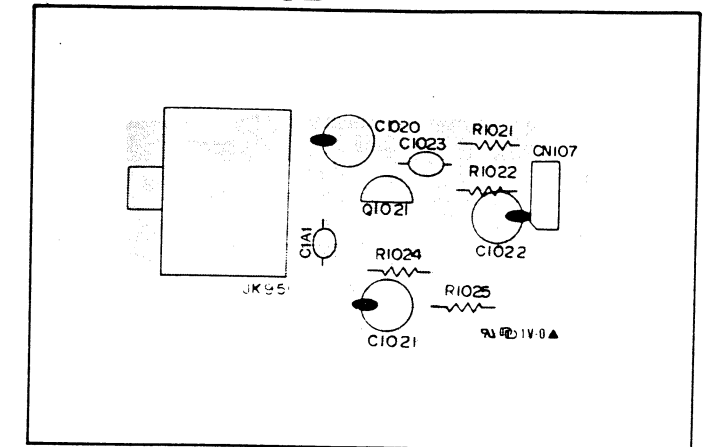
REMOTE PCB



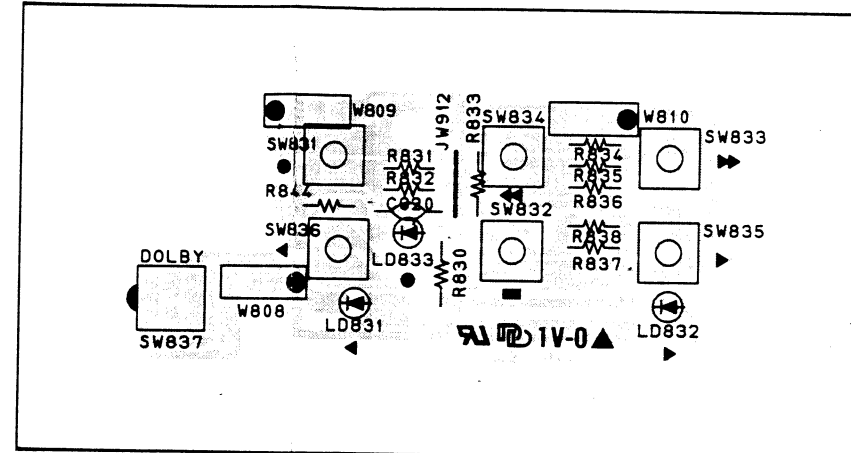
DECK I KEY PCB



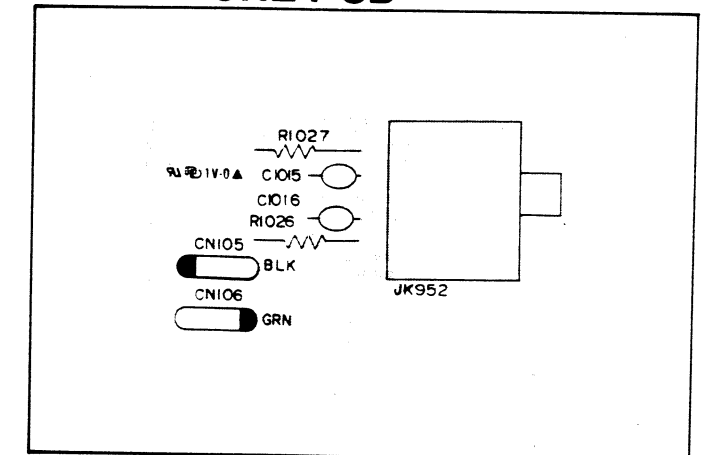
MIC JACK PCB



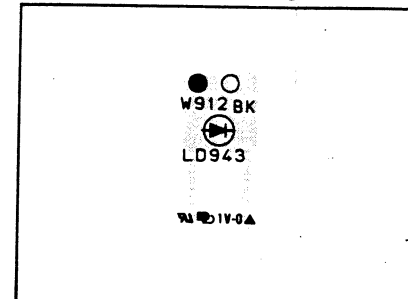
DECK II KEY PCB



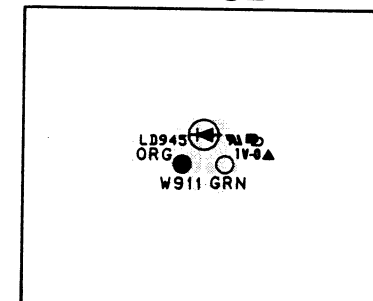
HEADPHONE PCB



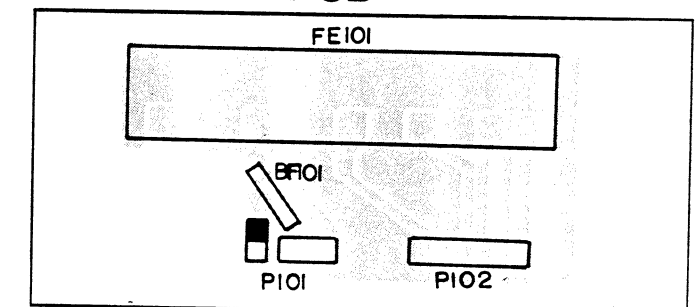
MUTE LED PCB



VR LED PCB

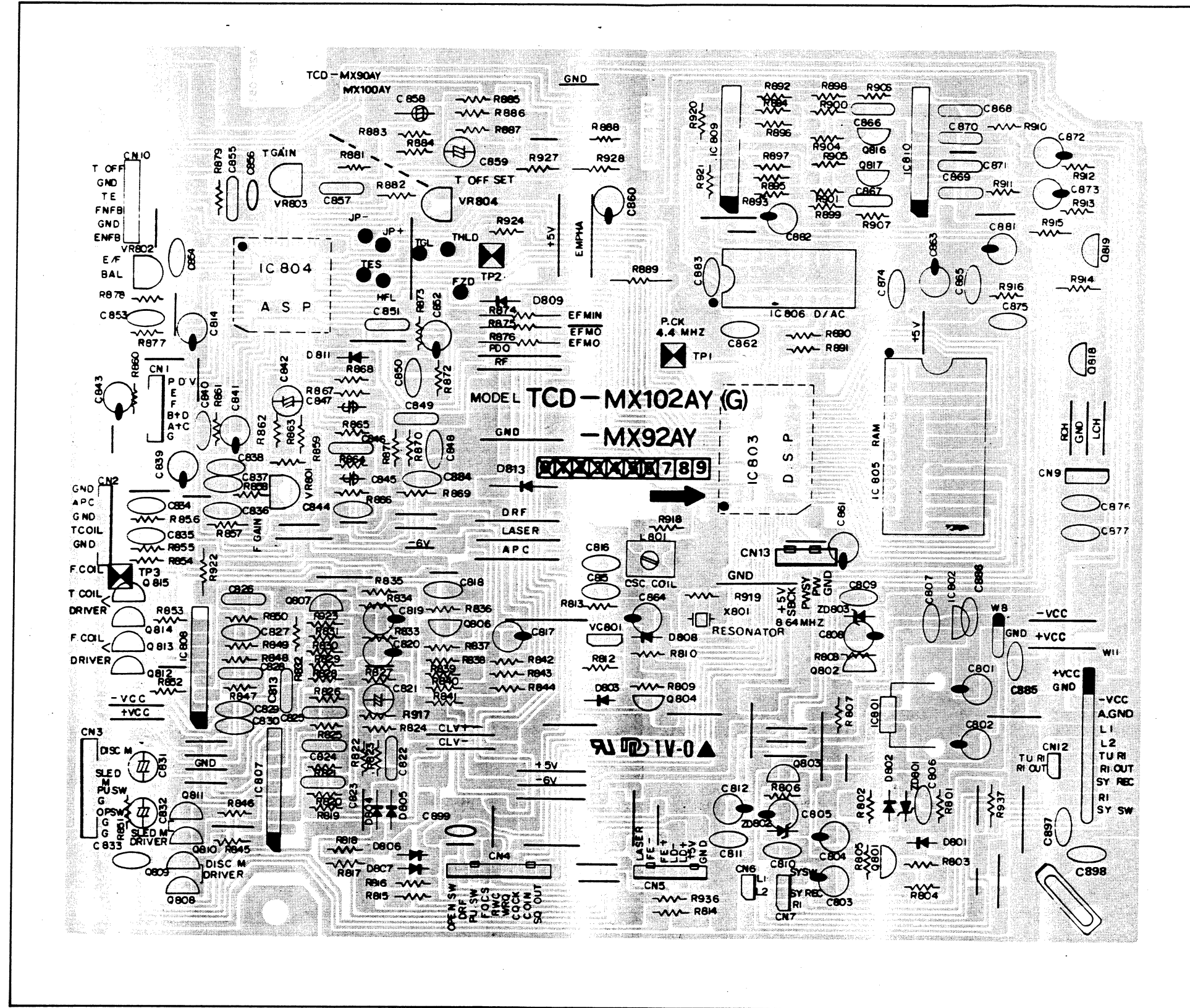


FRONT END PCB



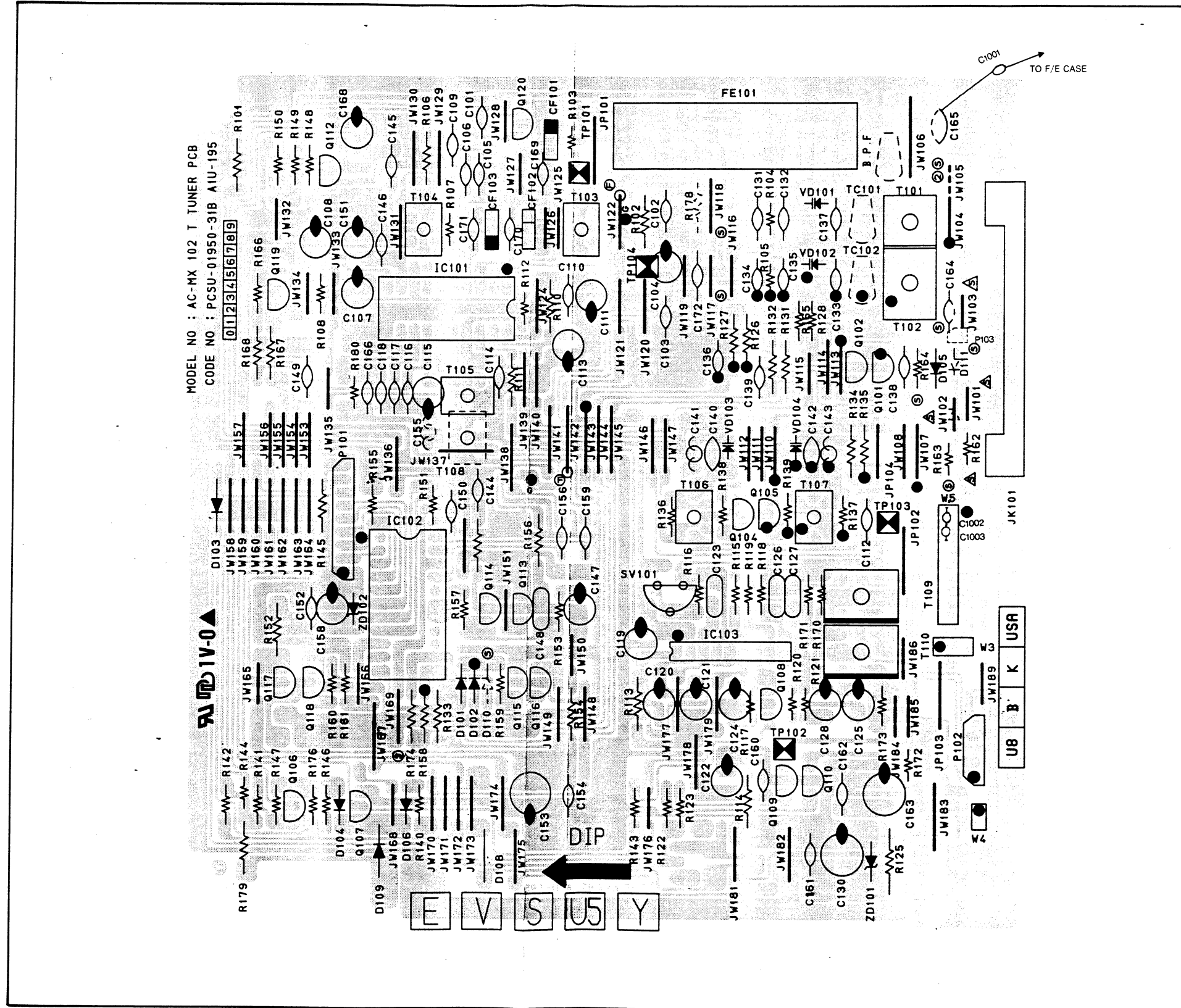
IX. PCB LAYOUT

C.D.P. PCB



IX. PCB LAYOUT

TUNER MAIN PCB ([V] ONLY)



ABBREVIATIONS (CASSETTE)

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AC	Alternating Current	MIN	MINute
A/D	Analog/Digital	MML	Maximum Modulation Level
AF	Auto Fader	MOL	Maximum Output Level
AMP	AMPlifier	MPX	Multi Plex
AR	Anti Recording	NC	Not Connected (No Connection)
AT BIAS	Auto Turning BIAS	NFB	Negative Feed Back
ATT	ATTenuator	NORM	NORMal
BAL	BALance	NR	Noise Reduction
BEF	Band Elimination Filter	OSC	OSCillator (OSCillation)
BSS	Blank Search System	P	Pulse
CAP M	CAPstan Motor	PB	Play Back
CH	CHannel	OMSS	Quick Memory Search System
COMP	COMParator	OR	Quick Reverse
CONT	CONTinuance	R CH	Right CHannel
CRLP	Computer Recording Level Processing	REC	RECORD(RECORDing)
CS	Chip Select	REV	REVERSE
D/A	Digital/Analog	ROT	ROTation
DC	Direct Current	REW	REWind
DET	DETECTOR	SEC	SECONd
DISCRI	DISCRIminator	SELE	SELEctor
DUB	DUBbing	SENS	SENSitivity
EQ	EQUALizer	SEPP	Single Ended Push Pull
FF(or F.FWD)	Fast Foward	SIG	SIGNAL
FLD	FLuorescent Display	SPECT	SPECTrum
FREQ	FREQUENCY	STD	STANdard
FWD	ForWARd	SW	SWitch
GND	GrouND	SYSCON	SYStem CONtrol
H	High	TP	Test Point
HPF	High Pass Filter	TRIG	TRIGa
IND	INDicator	VCA	Voltage Control Attenuator
IPLS	Instant Program Location System	VOL	VOLUME
L	Low	VOLT	VOLTage
L CH	Left CHannel	VR	Variable Resistor
LED	Light Emitting Diode	X'TAL	cysTAL
MEMO	MEMORy	X1	Normal speed
MICOM	MIcroCOMputer	X2	Dubble speed

ABBREVIATIONS (TUNER)

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AFC	Auto Frequency Control	MEMO	MEMOry
AGC	Auto Gain Control	MI-COM	Micro-COMputer
ALC	Auto Level Control	MIN	MINimum
AM	Amplitude Modulation	MIX	MIXing
AMP	AMPlifier	MPX	MultipleX
ANT	ANTenna	MW	Medium Wave(frequency)
BATT	BATTery	NC	No Connection
BLK	BLock	NFB	Negative Feed Back
BUFF	BUFFer	OSC	OSCillator
COMP	COMParator	PCB	Printed Circuit Board
DET	DETECT(DETector)	PLL	Phase Locked Loop
FLD	FLuorescent Display	Q.D	Quadrature Detector
FM	Frequency Modulation	Rch	Right channel
FREQ	FREQuency	REF	REFeRence
GND	GrouND	REG	REGulator
H	High	RF	Radio Frequency
HPF	High Pass Filter	SEG	SEGment
IF	Intermediate Frequency	SELE	SELEctor
IHF	Institut of High Fidelity	SENS	SENSitivity
IND	INDicator	SIG	SIGnal
I/O	In/Out	S/N	Signal to Noise Ratio
JW	Jumper Wire	SSG	Standard Signal Generator
L	Low	STD	STanDard
LCD	Liquid Crystal Display	SW	SWitch : Short Wave(frequency)
Lch	Left channel	THD	Total Harmonic Distortion
LED	Light Emiting Diode	TP	Test Point
LPF	Low Pass Filter	VCO	Voltage Controlled Oscillator
LW	Long Wave(Frequency)	VR	Variable Resistor
		X'TAL	Crystal

ABBREVIATIONS (AMPLIFIER)

ABBREVIATION	EXPLANATION
A	Analog
AC	Alternating Current
AMP	AMPlifier
CD	Compact Disc
COM	COMmon
D	Digital
D/A	Digital to Analog
DAC	Digital to Analog Converter
DAT	Digital Audio Tape recorder
DC	Direct Current
GND	GrouND
L	Left
LED	Light Emitting Diode
MC	Moving Coil
MM	Moving Magnet
PCB	Printed Circuit Board
R	Right
REG	REGulator
REC	RECORD
TR	TRansistor
SW	SWitch
V.AMP	Voltage AMPlifier
V.DISC	Video DISC
VR	Variable Resistance
VTR	Video Tape Recorder